Catalog

M5HDC-2010

Horizontal Ducted Condensing Unit

Models: M5HDC020AR
M5HDC025AR

McQuay®
Air Conditioning

Engineered for flexibility and performance.™

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Bulletin illustrations cover the general appearance of McQuay International products at the time of publication.
We reserve the right to change design and construction specifications at any time without notice.

Nomenclature

Indoor

M	5	CC	020	C	R

Brand	
M	: McQuay

Refrigerant	
“ ”	: Omitted if R22
4	: R407C
5	: R410A

Model Name	
CC	: Ceiling Concealed

Capacity Index	
020	: 20,000 Btu/h

Chassis	
C	: C series

Model Type	
“ ”	: Omitted if cooling only
R	: Heatpump

Outdoor

M	5	HDC	020	A	R

Brand	
M	: McQuay

Refrigerant	
“ ”	: Omitted if R22
4	: R407C
5	: R410A

Model Name	
HDC	: Horizontal Ducted Condensing Unit

Capacity Index	
020	: 20,000 Btu/h

Chassis	
A	: A series

Model Type	
“ ”	: Omitted if cooling only
R	: Heatpump

Product Line-Up

Indoor Unit
M5CC-CR

M5CC-CR		Nomenclature	Classification																		
			PCB			Handset			Fin		Refrigerant Control		Air Purification			Marking		Others		
			L2			SLM 3			Bare				Air Filter			CE				EPS Drain Pan
Heat Pump	020CR	AFBA	X			X			X				X			X				X
	025CR	AFAA	X			X			X				X			X				X

Outdoor Unit
M5HDC-AR

M5HDC-AR		Nomenclature	Classification																		
			Refrigerant Control		Fin		Compressor	Safety Devices							Marking		Others	
			Cap Tube		Hydrophilic Coated		Rotary								CE			
Heat Pump	020AR	AFBA	X		X		X								X			
	025AR	AFAA	X		X		X								X			

Features

Adequate External Static Pressure

The external static pressure is specially designed to blend in most of the interior design and yet to ensure a sufficient heat transfer capability.

Aluminium Slit Fin

The unique slit fin on the heat exchanger greatly increases the heat transfer efficiency and thus boosts up the unit capacity.

Short Piping

Reduce installation cost, improved reliability efficiency compared to roof mounted units.

Flexibility in Installation

The supply and return grille can be selected based on end user or professional interior designer in integrating the HDC unit to their favorite interior design.

Invisible & Evergreen

To make your condensing unit invisible by installing it above the ceiling with only the supply and return grille exposed to view. This ceiling concealed ducted condensing type of design has made it an “evergreen” design without scarifying the previous floor space.

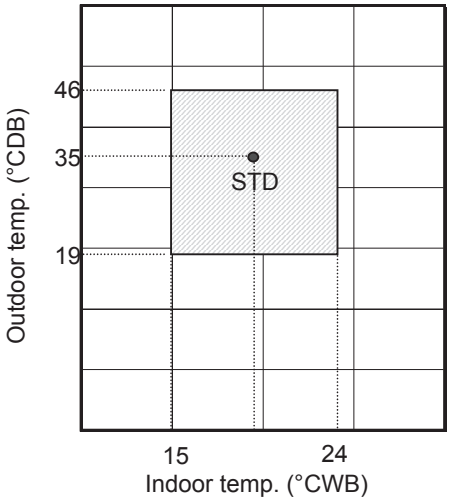
Application Information

Operating Range

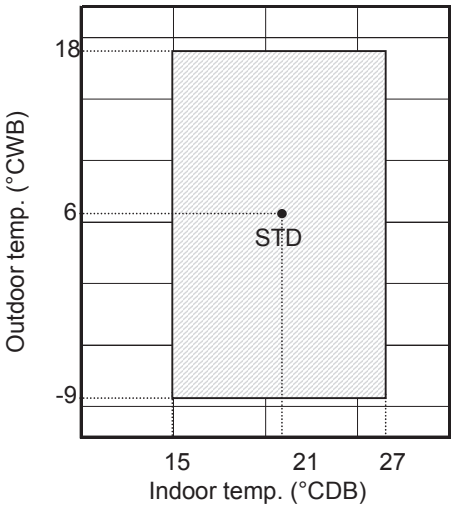
Ensure the operating temperature is in allowable range.

Heatpump

Cooling



Heating



Caution :

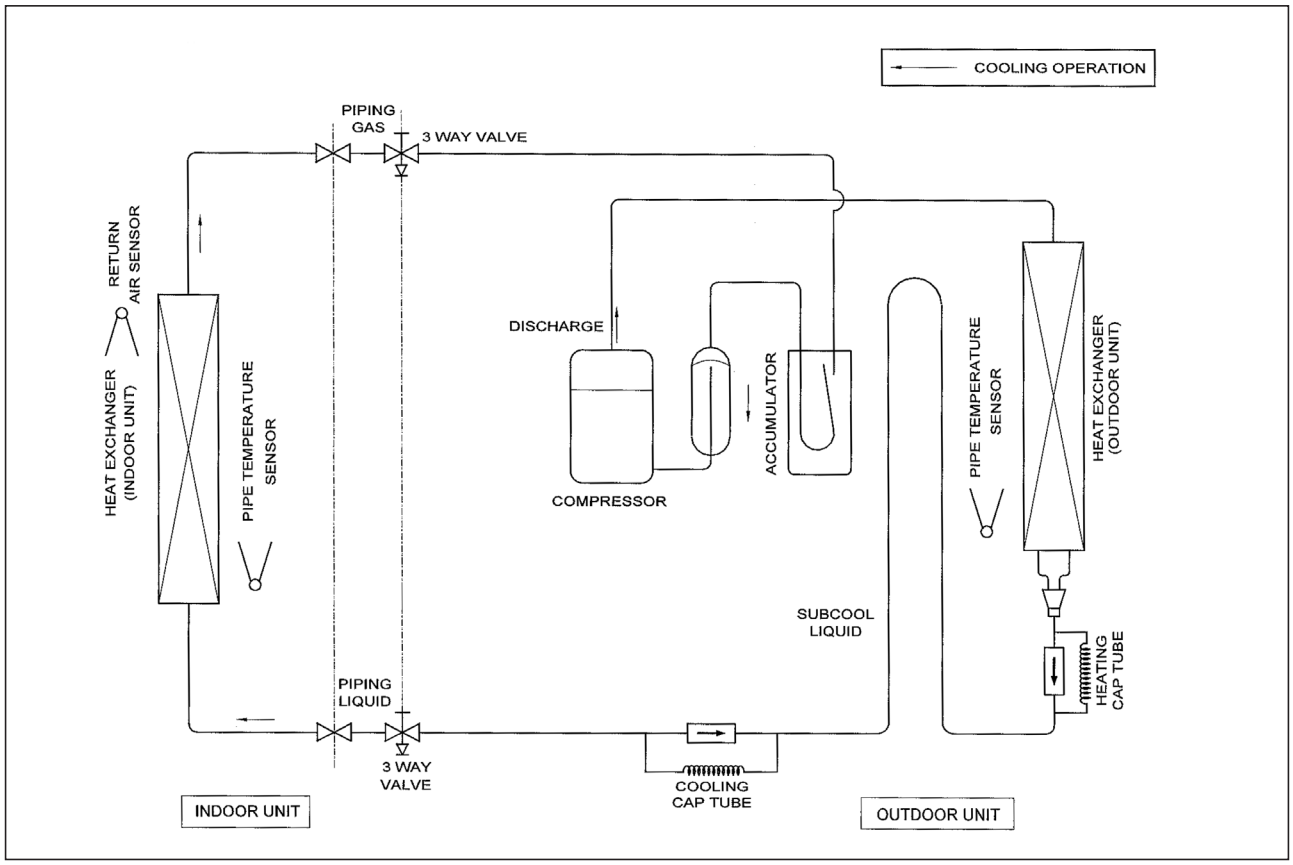
The use of your air conditioner outside the range of working temperature and humidity can result in serious failure.

Note:

Standard Operating Range

Refrigerant Circuit Diagram

Model: M5CC020CR – M5HDC020AR
M5CC025CR – M5HDC025AR



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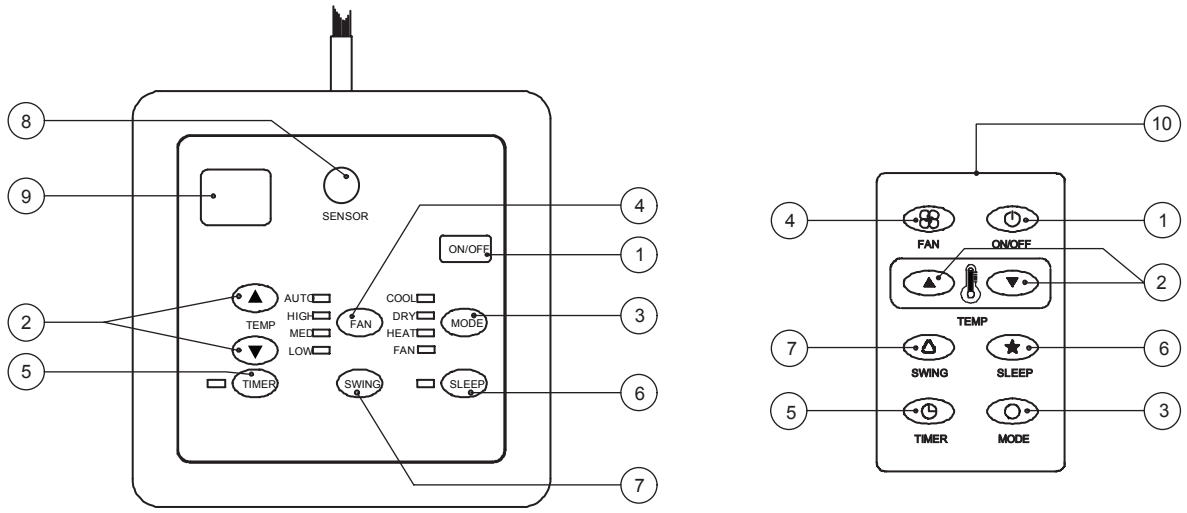
Controller

SLM



Operation Guide

1. "ON/OFF" switch
- Press to start the air conditioner unit.
- Press again to stop the unit.

2. Temperature setting
- Set the desired room temperature.
- Press button to increase or decrease the set temperature. Setting range are between 16°C to 30°C (60°F to 80°F).

3. Operation Modes
- Press the "mode" button for select the type of operating mode.
  - Cooling Only: COOL, DRY, FAN
  - Heat Pump : AUTO, COOL, DRY, HEAT, FAN (AUTO mode is represented by both COOL and HEAT LED light on)

4. Fan Speed selection.
- Press the button until the desired fan speed is achieved.

5. Timer.
- Press the set button to select the switch timer of the air conditioner unit (the setting range is between 1 to 10 hours).

6. "Sleep" mode
- Press button to activate the sleep function can only be activated under "cool" or heating mode operation. Activated under "cool" mode operation, the set temperature will increase 0.5°C after 30minutes, 1°C after 1 hour and 2°C after 2hours. If it is actiaved under "HEAT" mode operation, the set temperature will be descreased 0.5°C after 30 minutes, 1°C after 1 hour and 2°C after 2 hours.

7. Air Swing
- Press button to activate the automatic air swing function.

8. Sensor
- Infra red sensor to receive signals from wireless controller.

9. LED Display
- To display the set temperature (in °C) and timer delay setting (in hours).

10. Transmission source
- To transmit signals to the air conditioner.

Installation Guideline

Safety Precautions

⚠ WARNING

- Installation and maintenance should be performed by qualified persons who are familiar with local code and regulation, and experienced with this type of appliance.
- All field wiring must be installed in accordance with the national wiring regulation.
- Ensure that the rated voltage of the unit corresponds to that of the name plate before commencing wiring work according to the wiring diagram.
- The unit must be GROUNDED to prevent possible hazard due to insulation failure.
- All electrical wiring must not touch the refrigerant piping or any moving parts of the fan motors.
- Confirm that the unit has been switched OFF before installing or servicing the unit.
- Disconnect from the main power supply before servicing the air conditioner unit.
- DO NOT pull out the power cord when the power is ON. This may cause serious electrical shocks which may result in fire hazards.
- Keep the indoor and outdoor units, power cable and transmission wiring, at least 1m from TVs and radios, to prevent distorted pictures and static. {Depending on the type and source of the electrical waves, static may be heard even when more than 1m away}.

⚠ CAUTION

Please take note of the following important points when installing.

- **Do not install the unit where leakage of flammable gas may occur.**

  If gas leaks and accumulates around the unit, it may cause fire ignition.
- **Ensure that drainage piping is connected properly.**

  If the drainage piping is not connected properly, it may cause water leakage which will dampen the furniture.
- **Do not overcharge the unit.**

  This unit is factory pre-charged. Overcharge will cause over-current or damage to the compressor.
- **Ensure that the unit's panel is closed after service or installation.**

  Unsecured panels will cause the unit to operate noisily.
- **Sharp edges and coil surfaces are potential locations which may cause injury hazards. Avoid from being in contact with these places.**
- **Before turning off the power supply, set the remote controller's ON/OFF switch to the "OFF" position to prevent the nuisance tripping of the unit.** If this is not done, the unit's fans will start turning automatically when power resumes, posing a hazard to service personnel or the user.
- **Do not operate any heating apparatus too close to the air conditioner unit.** This may cause the plastic panel to melt or deform as a result of the excessive heat.
- **Ensure the color of wires of the outdoor unit and the terminal markings are same to the indoors respectively.**
- **<u>IMPORTANT</u> : DO NOT INSTALL OR USE THE**
- **AIR CONDITIONER UNIT IN A LAUNDRY ROOM.**
- **Do not use joined and twisted wires for incoming power supply.**

NOTICE

Disposal requirements

Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste.

Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other parts must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for re-use, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information.

Batteries must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.

⚠ Caution

Sharp edges and coil surfaces are potential injury hazard. Avoid from contact with them.

Installation of Indoor Unit

For installation of indoor unit, please refer to the indoor unit technical manual.

Installation of Outdoor Unit

The outdoor unit has to be installed as per recommended installation clearance (Diagram A)
Make sure that the location is suitable for piping and drainage.

Precaution steps as below :
i) Use the hanging bracket supplied with the unit.
ii) Ensure the support is strong enough to withstand the weight of the unit.
iii) Incline the drain pipe as per diagram B. Do not install drain trap to the drain pipe, this is to prevent blockage of drain pipe during heat mode when defrost is in operation.
iv) After completion of drain piping, confirm the drainage is good and there are no leaks.

Diagram A

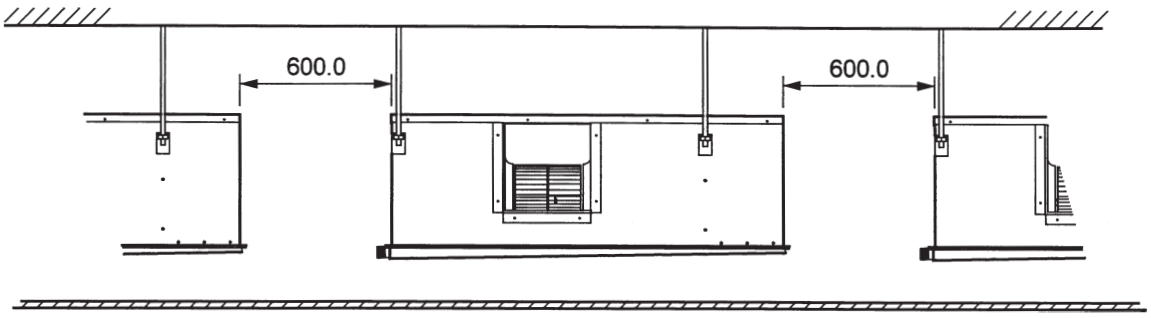
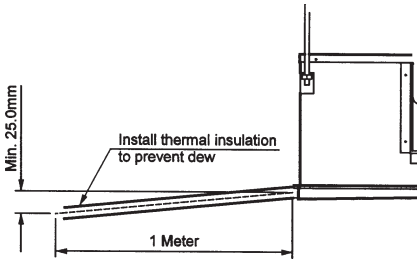


Diagram B



Wiring

Wiring Electrical Connections

- Wiring regulations on wire diameters differ from country to country. Please refer to your LOCAL ELECTRICAL CODES for field wiring rules. Be sure that installation comply with such rules and regulations.

General Precautions

- Ensure that the rated voltage of the unit corresponds to the name plate before carrying out proper wiring according to the wiring diagram.
- Provide a power outlet to be used exclusively for each unit. A power supply disconnect and a circuit breaker for over-current protection should be provided in the exclusive line.
- The unit must be GROUNDED to prevent possible hazards due to insulation failures.
- All wiring must be firmly connected.
- All wiring must not touch the hot refrigerant piping, compressor or any moving parts of fan motors.

Refrigerant Piping

Maximum Pipe Length And Maximum Number Of Bends

- When the pipe length becomes too long, both the capacity and reliability drop. As the number of bends increases, system piping resistance to the refrigerant flow increases, thus lowering the cooling capacity, and as the result the compressor may become defective. Always choose the shortest path and follow the recommendation as tabulated below:

Model / Data	M5HDC020AR	M5HDC025AR
Max. Length, L	15 m	15 m
Max. Elevation, H	8 m	8 m
Max. No. of Bends	10	10

Piping Sizes (Flare Connection Type)

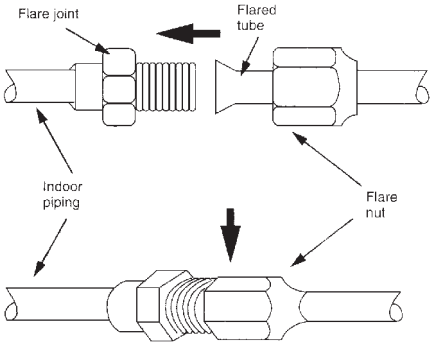
- Piping sizes are as follows:

Model	M5HDC020AR	M5HDC025AR
Liquid (mm/in)	6.35 (1/4)	9.52 (3/8)
Suction (mm/in)	15.88 (5/8)	15.88 (5/8)

Piping Connection To The Units

- Align the center of the piping and sufficiently tighten the flare nut with fingers.
- Finally, tighten the flare nut with torque wrench until the wrench clicks.
- When tightening the flare nut with torque wrench, ensure the direction for tightening follows the arrow on the wrench.

Pipe Size (mm/in)	Torque (nm)
6.35 (1/4)	18
9.53 (3/8)	42
15.88 (5/8)	65



Vacuuming and Charging

- The precharged outdoor unit does not need any vacuuming or charging. However once it is connected, theconnecting pipe line and the indoor need to be vacuumed before releasing refrigerant from the outdoor unit.
  1) Open the service port core cap.
  2) Connect pressure gauge to the service port.
  3) Connect the line to vacuum pump. Open the charging manifold valve and turn the pump on. Vacuum to -0.1MPa (-760mmHg) or lower. (Evacuation time varies by the pump but averagely in 1 hour).

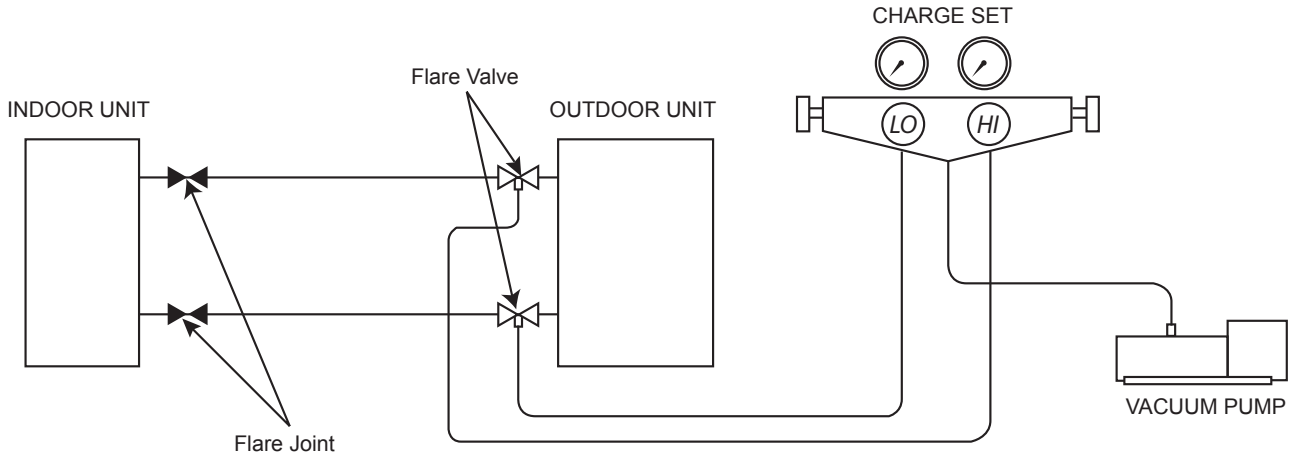


Diagram 1

4) After evacuation, unscrew the spindle (diagram 2) for the gas to run to indoor unit.

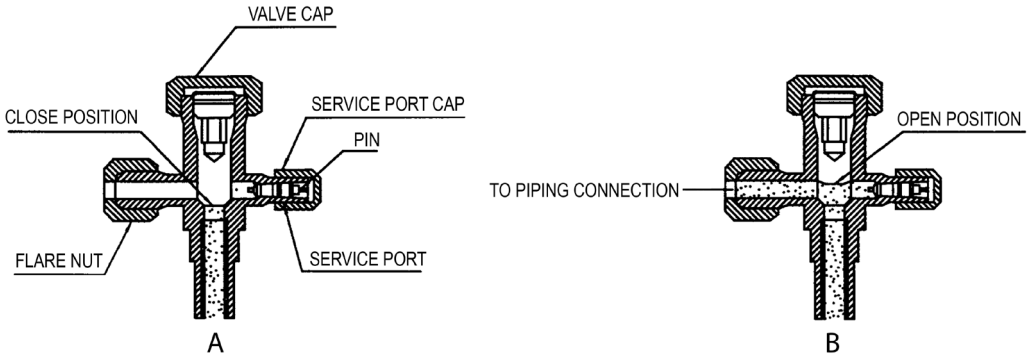
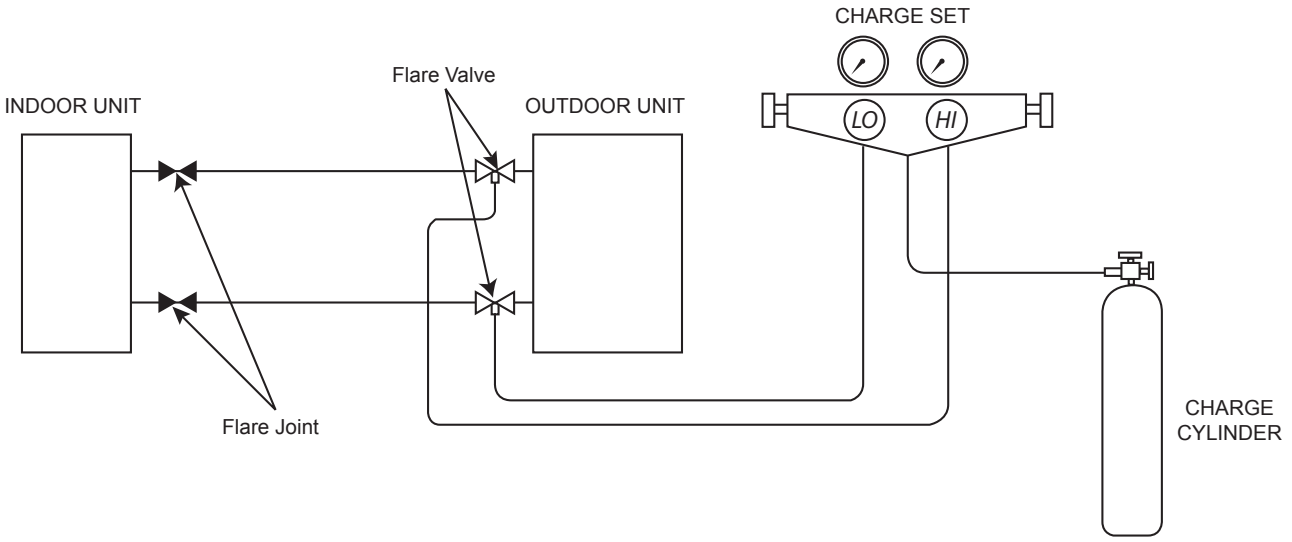


Diagram 2

- The refrigerant gas has already charged into the outdoor unit. For the piping length of 5m. Additional refrigerant charge after vacuuming is not necessary.
- When the piping length is more than 5m, please use the table below (unit in gram).

Model	7m	10m	15m
M5HDC020AR	40	100	200
M5HDC025AR	80	200	400



Overall Checking

- Ensure the following, in particular :-
  1) The unit is mounted solidly and rigid in position.
  2) Piping and connections are leak proof after charging.
  3) Proper wiring has been done.

- Drainage check - pour some water into drain pan.

- Test run
  1) Conduct a test run after water drainage test and gas leakage test.
  2) Watch out for the following :-
     a) Is the electric plug firmly inserted into the socket?
     b) Is there any abnormal sound from unit?
     c) Is there any abnormal vibrations with regard to unit itself or piping?
     d) Is there smooth drainage of water?

- Check that :-
  1) Outdoor blower is running, with warm air blowing off the discharge grille (cooling cycle).
  2) Indoor blower is running and discharge cool air (cooling cycle).
  3) Suction (low side) pressure as recommended.
  4) The remote controller incorporate a 3 minute delay in there circuit. Thus, it requires about 3minutes before the outdoor unit can start up.

Standard Operating Condition

Heatpump

Temperature	Ts °C	Th °C
minimum indoor temperature	15	-
maximum indoor temperature	26.7	-
minimum outdoor temperature	-2	-3
maximum outdoor temperature	24	18

Ts : Dry bulb temperature
Th : Wet bulb temperature

Special Precautions When Dealing with Refrigerant R410A Unit

(1) What is new refrigerant R410A?
R410A is a new HFC refrigerant which does not damage the ozone layer. The working pressure of this new refrigerant is 1.6 times higher than conventional refrigerant (R22), thus proper installation / servicing is essential.

(2) Components
Mixture weight composition R32(50%) and R125(50%)

(3) Characteristic
- R410A liquid and vapor components have different compositions when the fluid evaporates or condenses. Hence, when leak occurs and only vapor leaks out, the composition of the refrigerant mixture left in the system will change and subsequently affect the system performance. DO NOT add new refrigerant to leaked system. It is recommended that the system should be evacuated thoroughly before recharging with R410A.

- When refrigerant R410A is used, the composition will differ depending on whether it is in gaseous or liquid phase. Hence when charging R410A, ensure that only liquid is being withdrawn from the cylinder or can. This is to make certain that only original composition of R410A is being charged into the system.
- POE oil is used as lubricant for R410A compressor, which is different from the mineral oil used for R22 compressor. Extra precaution must be taken not to expose the R410A system too long to moist air.

(4) Check list before installation / servicing
Tubing
Refrigerant R410A is more easily affected by dust of moisture compared with R22, make sure to temporarily cover the ends of the tubing prior to installation.
- Compressor oil
  No additional charge of compressor oil is permitted.
- Refrigerant
  No other refrigerant other that R410A
- Tool (size of service port is different from R22 system)
  Tools specifically for R410A only (must not be used for R22 or other refrigerant)
  i) Gauge manifold and charging hose
  ii) Gas leak detector
  iii) Refrigerant cylinder/charging cylinder
  iv) Vacuum pump c/w adapter
  v) Flare tools
  vi) Refrigerant recovery machine

(5) Handling and installation guidelines

Like R22 system, the handling and installation of R410A system are closely similar. All precautionary measures; such as ensuring no moisture, no dirt or chips in the system, clean brazing using nitrogen, and thorough leak check and vacuuming are equally important requirements. However, due to its hydroscopic POE oil, additional precautions must be taken to ensure optimum and trouble free system operation.

(a) During installation or servicing, avoid prolong exposure of the internal part of the refrigerant system to moist air. Residual POE oil in the piping and components can absorb moisture from the air.

(b) Ensure that the compressor is not exposed to open air for more than the recommended time specified by its manufacturer (typically less than 10 minutes). Removed the seal plugs only when the compressor is about to be brazed.

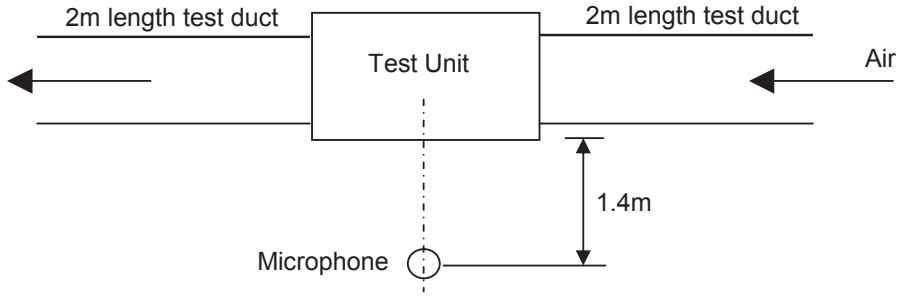
(c) The system should be thoroughly vacuumed to 1.0 Pa (700mmHg) or lower. This vacuuming level is more stringent than R22 system so as to ensure no incompressible gas and moisture in the system.

Sound Data

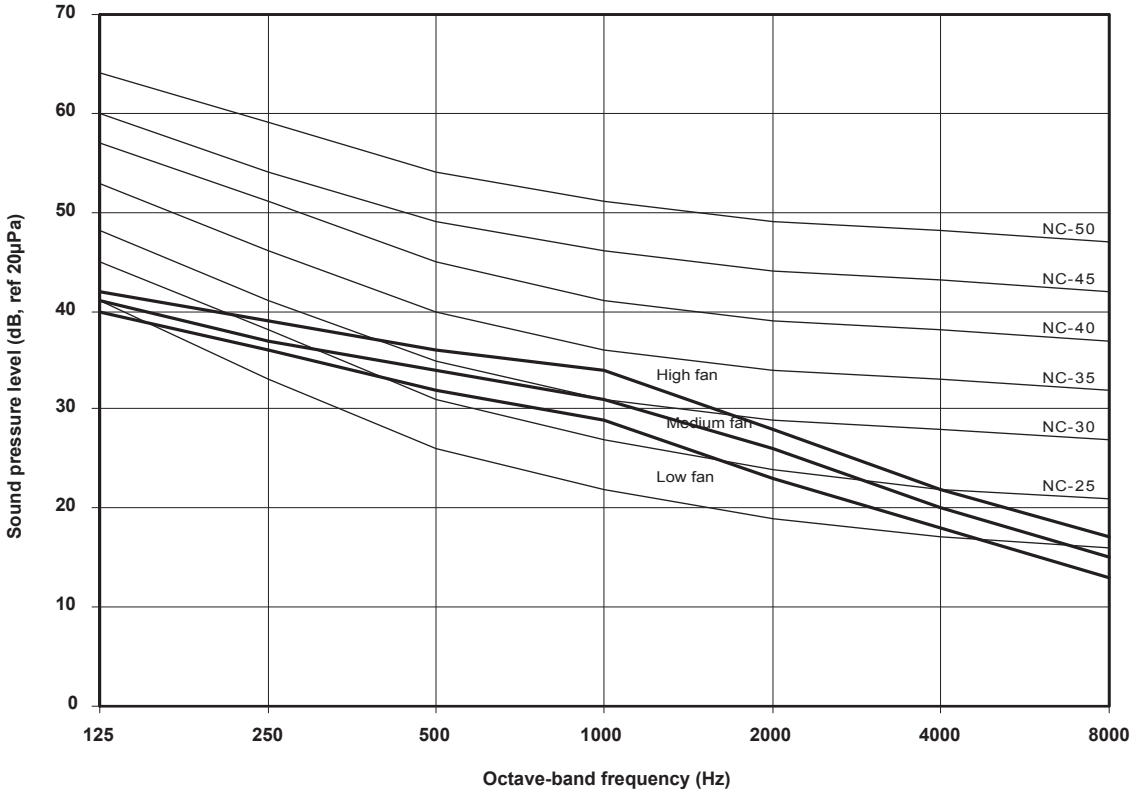
Sound Pressure Level

Model	Ext. Static (mmAq)	Speed	1/1 Octave A-Weighted Sound Pressure (dBA), ref 20μPa							Overall A (dBA)	Noise Criteria
			125Hz	250Hz	500Hz	1kHz	2kHz	4kHz	8kHz		
M5CC020CR	6.5	High	42	39	36	34	28	22	17	38	33
	6.0	Medium	41	37	34	31	26	20	15	36	30
	3.5	Low	40	36	32	29	23	18	13	34	27
M5CC025CR	5.5	High	42	41	37	34	31	29	23	40	33
	4.0	Medium	41	40	36	33	29	28	22	39	32
	3.0	Low	36	35	33	31	26	27	21	36	30

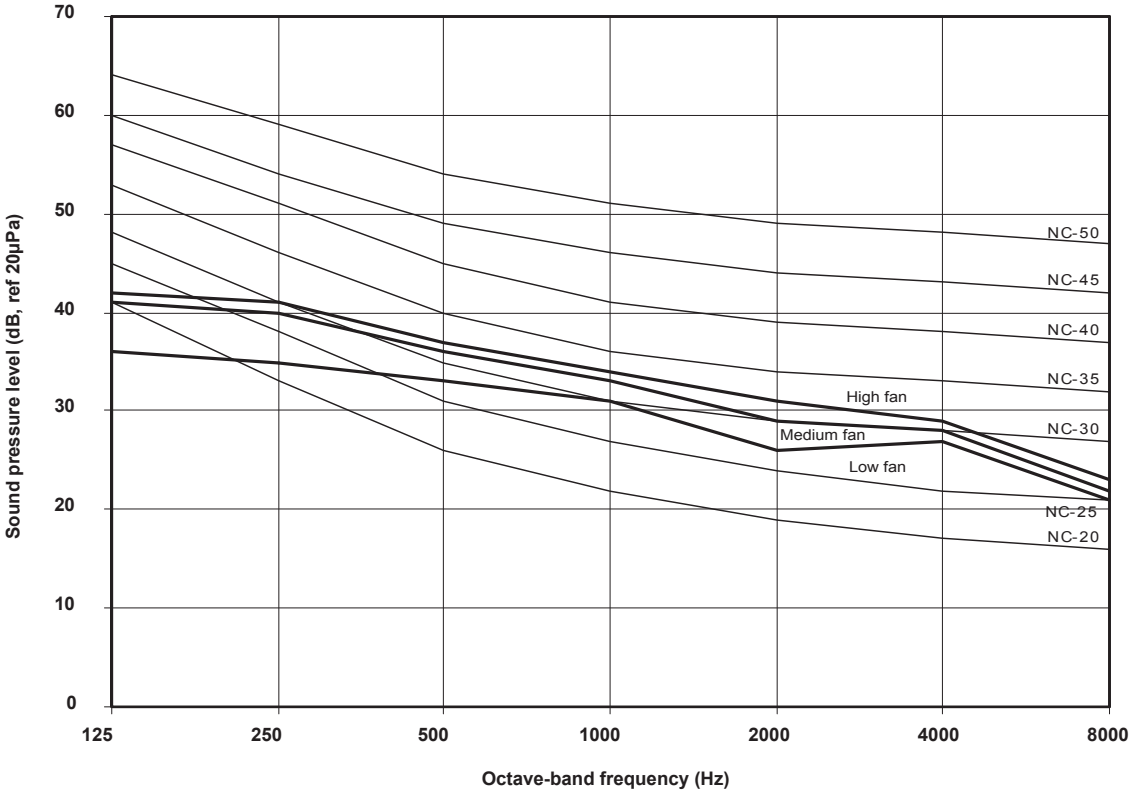
Microphone position: 1.4m below the centre of the unit. (GB Standard- GB/ D17758)
Tested with 2m length duct at the discharge outlet and air return inlet.

Model	Measuring Location
M5CC020CR M5CC025CR	 Standard: GB/D 17758

M5CC020CR
NC Curve



M5CC025CR
NC Curve



Engineering And Physical Data

General Data - Heat Pump (R410A)

MODEL		INDOOR UNIT			M5CC020CR	M5CC025CR
		OUTDOOR UNIT			M5HDC020AR	M5HDC025AR
NOMINAL COOLING CAPACITY				Btu/h	18300	22300
				W	5360	6540
NOMINAL HEATING CAPACITY				Btu/h	18500	23500
				W	5420	6890
NOMINAL TOTAL INPUT POWER (COOLING)				W	2350	2930
NOMINAL TOTAL INPUT POWER (HEATING)				W	2120	2720
NOMINAL RUNNING CURRENT (COOLING)				A	10.5	14
NOMINAL RUNNING CURRENT (HEATING)				A	9.9	13.2
POWER SOURCE				V/Ph/Hz	220-240/1/50	220-240/1/50
EER				W/W	2.35	2.23
REFRIGERANT TYPE					R410A	R410A
REFRIGERANT CONTROL (EXPANSION DEVICE)					OUTDOOR CAP. TUBE	OUTDOOR CAP. TUBE
INDOOR UNIT	CONTROL	AIR DISCHARGE			DUCTED	DUCTED
		OPERATION			SLM WIRED HANDSET	SLM WIRED HANDSET
	AIR FLOW	HIGH		l/s / CFM	330 / 700	345 / 730
		MEDIUM		l/s / CFM	321 / 680	340 / 720
		LOW		l/s / CFM	293 / 620	274 / 580
	EXTERNAL STATIC PRESSURE (H/M/L)			Pa / in.wg.	64 / 58 / 34 (0.3 / 0.2 / 0.1)	55 / 39 / 29 (0.2 / 0.2 / 0.1)
	SOUND PRESSURE LEVEL (H/M/L)			dBA	38 / 36 / 34	40 / 39 / 36
	UNIT DIMENSION	HEIGHT		mm/in	261 / 10.3	261 / 10.3
		WIDTH		mm/in	1065 / 41.9	1200 / 47.2
		DEPTH		mm/in	376 / 14.8	411 / 16.2
	PACKING DIMENSION	HEIGHT		mm/in	376 / 14.8	376 / 14.8
		WIDTH		mm/in	1251 / 49.3	1380 / 54.6
		DEPTH		mm/in	541 / 21.3	541 / 21.3
	UNIT WEIGHT			kg/lb	22 / 49	25 / 55
	CONDENSATE DRAIN SIZE			mm/in	19.1 / 3/4	19.1 / 3/4
OUTDOOR UNIT	AIR FLOW			l/s / CFM	640 / 1346	600 / 1278
	SOUND PRESSURE LEVEL			dBA	46	47
	UNIT DIMENSION	HEIGHT		mm/in	618 / 24.3	618 / 24.3
		WIDTH		mm/in	703 / 27.7	703 / 27.7
		DEPTH		mm/in	1347 / 53.0	1347 / 53.0
	PACKING DIMENSION	HEIGHT		mm/in	618 / 24.3	618 / 24.3
		WIDTH		mm/in	703 / 27.7	703 / 27.7
		DEPTH		mm/in	1347 / 53.0	1347 / 53.0
	UNIT WEIGHT			kg/lb	119 / 262	122 / 269
	PIPE CONNECTION	TYPE			FLARE VALVE	FLARE VALVE
		SIZE	LIQUID	mm/in	6.4 / 1/4	6.4 / 1/4
			GAS	mm/in	12.7 / 1/2	15.9 / 5/8
REFRIGERANT CHARGE				kg/lb	1.395 / 3.08	1.55 / 3.417

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.
2) ALL UNITS ARE BEING TESTED AND COMPLY TO ISO 5151.
3) NOMINAL COOLING AND HEATING CAPACITY ARE BASED ON THE CONDITIONS BELOW :
COOLING - 27°C DB / 19°C WB INDOOR AND 35°C DB / 24°C WB OUTDOOR
4) SOUND PRESSURE LEVEL ARE ACCORDING TO JIS B 8615 STANDARD. POSITION OF THE MEASUREMENT POINT IS 1m IN FRONT AND 1m BELOW THE UNIT.

Components Data (R22)

MODEL	**INDOOR UNIT**				**M5CC020CR**	**M5CC025CR**
	OUTDOOR UNIT				**M5HDC020AR**	**M5HDC025AR**
INDOOR FAN	**TYPE**				CENTRIFUGAL	CENTRIFUGAL
	QUANTITY				2	2
	MATERIAL				GALVANIZED STEEL	GALVANIZED STEEL
	DRIVE				DIRECT	DIRECT
	DIAMETER			**mm/in**	160 / 6.30	160 / 6.30
	LENGTH			**mm/in**	202 / 7.95	202 / 7.95
INDOOR FAN MOTOR	**TYPE**				INDUCTION	INDUCTION
	QUANTITY				1	1
	INDEX OF PROTECTION (IP)				N/A	N/A
OUTDOOR FAN	**TYPE**				CENTRIFUGAL (10" x8")	CENTRIFUGAL (10" x8")
	QUANTITY				1	1
	MATERIAL				HOT DIP GALVANISED STEEL	HOT DIP GALVANISED STEEL
	DRIVE				DIRECT	DIRECT
	DIAMETER			**mm/in**	380 / 15	381 / 15
OUTDOOR FAN MOTOR	**TYPE**				SINGLE PHASE INDUCTION	SINGLE PHASE INDUCTION
	QUANTITY				1	1
	INDEX OF PROTECTION (IP)				IP00	IP00
COMPRESSOR	**TYPE**				ROTARY	ROTARY
	OIL TYPE				RB68A OR FREOL ALPHA68M	RB68A OR FREOL ALPHA68M
	OIL AMOUNT			**cm^3 / fl.oz.**	470 / 15.9	700 / 23.7
INDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS INNER GROOVE COPPER	SEAMLESS INNER GROOVE COPPER
		DIAMETER		**mm/in**	7.00 / 0.278	7.00 / 0.278
		THICKNESS		**mm/in**	0.28 / 0.011	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM (SLIT FIN)	ALUMINIUM (SLIT FIN)
		THICKNESS		**mm/in**	0.11 / 0.0043	0.11 / 0.0043
		FACE AREA		**m^2/ft^2**	0.176 / 1.892	0.203 / 2.187
		ROW			3	3
		FIN PER INCH			18	18
OUTDOOR COIL	**TUBE**	**MATERIAL**			SEAMLESS COPPER TUBE	SEAMLESS COPPER TUBE
		DIAMETER		**mm/in**	7.00 / 0.276	7.00 / 0.276
		THICKNESS		**mm/in**	0.28 / 0.011	0.28 / 0.011
	FIN	**MATERIAL**			ALUMINIUM	ALUMINIUM
		THICKNESS		**mm/in**	0.105 / 0.004	0.105 / 0.004
		FACE AREA		**m^2/ft^2**	0.37 / 573.5	0.37 / 573.5
		ROW			2	3
		FIN PER INCH			19	19
AIR QUALITY	**FILTER**	**TYPE**			WASHABLE SARANET FILTER	WASHABLE SARANET FILTER
		QUANTITY		**pc**	1	1
		SIZE	**LENGTH**	**mm/in**	860 / 33.88	995 / 39.17
			WIDTH	**mm/in**	195 / 7.68	195 / 7.68
			THICKNESS	**mm/in**	5 / 0.20	5 / 0.20
CASING	**INDOOR UNIT**			**MATERIAL**	GALVANIZED STEEL	GALVANIZED STEEL
				FINISHING	WITH PE INSULATION	WITH PE INSULATION
				COLOUR	WITHOUT POWDER PAINT	WITHOUT POWDER PAINT
	OUTDOOR UNIT			**MATERIAL**	GALVANIZED STEEL	GALVANIZED STEEL
				FINISHING	PAINTED	PAINTED
				COLOUR	LIGHT GREY	LIGHT GREY

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Safety Devices

MODEL	INDOOR UNIT			M5CC020CR	M5CC025CR
	OUTDOOR UNIT			M5HDC020AR	M5HDC025AR
SAFETY DEVICE	HIGH PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	LOW PRESSURE SWITCH	TYPE		N/A	N/A
		OPEN	kPa / psi	N/A	N/A
		CLOSE	kPa / psi	N/A	N/A
	PHASE SEQUENCER			N/A	N/A
	DISCHARGE THERMOSTAT SETTING		°C / °F	N/A	N/A

1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE.

Performance Data

Interpolation and *Extrapolation* method can be used to get the total capacity, TC and sensible capacity, SC at those temperatures which are not stated out in the table.

Example:

Model: M5CC020CR - M5HDC020AR
Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Solution:

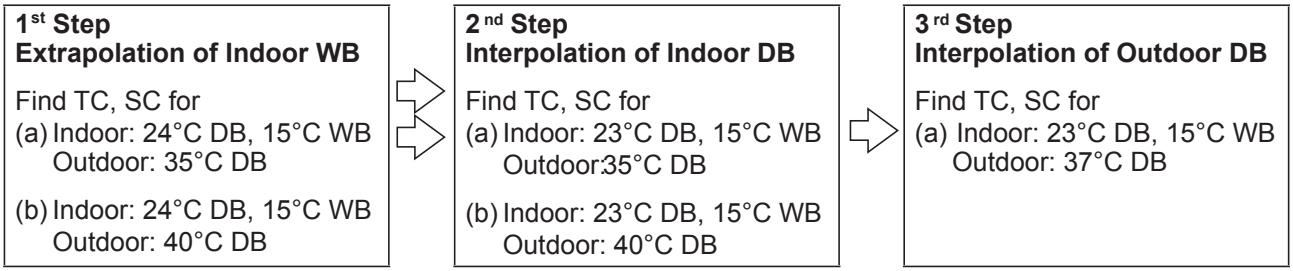
Overall

Based on the Performance Table
1. Refer to the Indoor DB column,
   - **23°C** is located between 20°C and 24°C (Thus, Interpolation need to be applied)

2. Refer to the Indoor WB column,
   - **15°C** only available in the case of Indoor DB = 20°C. (Thus, Extrapolation between 16°C WB and 17°C WB during 24°C indoor DB is required)

3. Refer to the Outdoor DB column,
   - **37°C** is located between 35°C and 40°C. (Thus, Interpolation need to be applied)

Please follow the steps below in order to get the required capacity.



Calculation Steps

Details:

1st Step:

To obtain the Total capacity and Sensible capacity for

(a) Indoor Condition: 24°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB ˚C	Indoor WB ˚C	Outdoor DB, ˚C			
			35		
			TC (kW)	SC (kW)	
			⋮	⋮	
24	15	.....	x_1	y_1	
	16		3.363	2.381	
	17		3.431	2.288	

Total capacity, TC

$\Rightarrow x_1$ = 3.295kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{o}\,C - 15^{o}\,C}{17^{o}\,C - 16^{o}\,C} = \frac{2.288kW - y_1}{2.228kW - 2.381kW}$$

$\Rightarrow y_1$ = 2.474kW

(b) Indoor Condition: 24°C DB, 15°C WB
Outdoor Condition: 40°C DB

Indoor DB ˚C	Indoor WB ˚C	Outdoor DB, ˚C			
			40		
			TC (kW)	SC (kW)	
			⋮	⋮	
24	15	.....	x_2	y_2	
	16		3.066	2.056	
	17		3.137	1.954	

Total capacity, TC

$\Rightarrow x_2$ = 2.995kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Extrapolation Method:

$$\Rightarrow \frac{17^{o}\,C - 15^{o}\,C}{17^{o}\,C - 16^{o}\,C} = \frac{1.954kW - y_2}{1.954kW - 2.056kW}$$

$\Rightarrow y_2$ = 2.158kW

** This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

2 nd Step:

To obtain the Total capacity and Sensible capacity for
(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 35°C DB

Indoor DB ˚C	Indoor WB ˚C	Outdoor DB,˚C			
			35		
			TC (kW)	SC (kW)	
			⋮	⋮	
20	**15**		3.295	1.510	
23	**15**	.....	x_3	y_3	
24	**15**		3.295	2.474	

Total capacity, TC

⇒ x_3 = 3.295kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 35°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{o}\,C - 20^{o}\,C}{24^{o}\,C - 23^{o}\,C} = \frac{2.474kW - 1.510kW}{2.474kW - y_3}$$

⇒ y_1 = 2.233kW

(b) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 40°C DB

Indoor DB ˚C	Indoor WB ˚C	Outdoor DB,˚C			
			40		
			TC (kW)	SC (kW)	
			⋮	⋮	
20	**15**	.....	2.995	1.195	
23	**15**		x_4	y_4	
24	**15**		2.995	2.158	

Total capacity, TC

⇒ x_4 = 2.995kW *(Same as Total capacity at 20°C Indoor DB / 15°C Indoor WB & 40°C Outdoor WB)**

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{24^{o}\,C - 20^{o}\,C}{24^{o}\,C - 23^{o}\,C} = \frac{2.158kW - 1.195kW}{2.158kW - y_1}$$

⇒ y_2 = 1.597kW

** This is due to 2 different conditions with same WB temperature, will have the same level of enthalpy. For more details, please refer to psychrometrics chart*

3rd Step:

To obtain the Total capacity and Sensible capacity for
(a) Indoor Condition: 23°C DB, 15°C WB
Outdoor Condition: 37°C DB

Indoor DB ˚C	Indoor WB ˚C	Outdoor DB, ˚C						
			35		37		40	
			TC (kW)	SC (kW)	TC (kW)	SC (kW)	TC (kW)	SC (kW)
			⋮	⋮	⋮	⋮	⋮	⋮
23	**15**	.....	3.295	2.233	x	y	2.995	1.917

Total capacity, TC

Interpolation Method:

$$\Rightarrow \frac{40^{o}\,C - 35^{o}\,C}{40^{o}\,C - 37^{o}C} = \frac{2.995kW - 3.295kW}{2.995kW - x}$$

$\Rightarrow x = 3.175kW$

Sensible capacity, SC

Interpolation Method:

$$\Rightarrow \frac{40^{o}\,C - 35^{o}\,C}{40^{o}\,C - 37^{o}\,C} = \frac{1.917kW - 2.233kW}{1.917kW - y}$$

$\Rightarrow y = 2.107kW$

Performance Table

Heatpump (R410A)

Model: M5CC020CR - M5HDC020CR
Cooling Mode

ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.384	4.286	6.049	3.950	5.763	3.665	5.477	3.379	5.191	3.093	4.848	2.750
	16	6.485	3.986	6.152	3.707	5.844	3.453	5.536	3.199	5.227	2.945	4.857	2.640
24	16	6.485	5.185	6.152	4.906	5.844	4.652	5.536	4.398	5.227	4.144	4.857	3.839
	17	6.591	4.885	6.260	4.662	5.929	4.440	5.598	4.218	5.267	3.996	4.870	3.729
	18	6.674	4.562	6.329	4.380	5.985	4.199	5.640	4.018	5.295	3.836	4.882	3.619
	19	6.737	4.192	6.279	3.819	5.821	3.445	5.363	3.072	5.150	3.270	4.894	3.508
	20	6.843	3.900	6.488	3.724	6.133	3.547	5.778	3.370	5.423	3.193	4.997	2.981
28	18	6.674	5.761	6.329	5.579	5.985	5.398	5.640	5.217	5.295	5.035	4.882	4.818
	19	6.737	5.391	6.279	5.018	5.821	4.644	5.363	4.271	5.150	4.469	4.894	4.707
	20	6.843	5.099	6.488	4.923	6.133	4.746	5.778	4.569	5.423	4.392	4.997	4.180
	21	6.929	4.761	6.577	4.548	6.225	4.335	5.874	4.122	5.522	3.909	5.100	3.653
	22	7.015	4.423	6.667	4.173	6.318	3.924	5.969	3.675	5.621	3.425	5.202	3.126
	23	7.101	4.084	6.756	3.799	6.410	3.513	6.065	3.227	5.720	2.942	5.305	2.599
	24	7.188	3.746	6.845	3.424	6.503	3.102	6.161	2.780	5.819	2.458	5.408	2.072
30	20	6.843	5.699	6.488	5.522	6.133	5.345	5.778	5.169	5.423	4.992	4.997	4.780
	21	6.929	5.361	6.577	5.148	6.225	4.934	5.874	4.721	5.522	4.508	5.100	4.253
	22	7.015	5.022	6.667	4.773	6.318	4.523	5.969	4.274	5.621	4.025	5.202	3.725
	23	7.101	4.684	6.756	4.398	6.410	4.112	6.065	3.827	5.720	3.541	5.305	3.198
	24	7.188	4.345	6.845	4.023	6.503	3.702	6.161	3.380	5.819	3.058	5.408	2.671

Model: M5CC020CR - M5HDC020AR
Heating Mode

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	3.278	3.278	3.710	3.710	3.854	3.854	5.438	5.438	6.302	6.302	6.735	6.735	7.167	7.167
17	3.192	3.192	3.949	3.949	3.777	3.777	5.432	5.432	6.266	6.266	6.705	6.705	7.145	7.145
19	3.106	3.106	4.189	4.189	3.701	3.701	5.425	5.425	6.230	6.230	6.676	6.676	7.122	7.122
21	3.020	3.020	4.155	4.155	3.624	3.624	5.381	5.381	6.194	6.194	6.647	6.647	7.100	7.100
23	2.934	2.934	3.849	3.849	3.548	3.548	5.299	5.299	6.157	6.157	6.618	6.618	7.078	7.078
25	2.848	2.848	3.543	3.543	3.472	3.472	5.217	5.217	6.121	6.121	6.589	6.589	7.056	7.056
27	2.762	2.762	3.237	3.237	3.395	3.395	5.135	5.135	6.085	6.085	6.559	6.559	7.034	7.034
	FROST REGION													

Model: M5CC025CR - M5HDC025AR
Cooling Mode

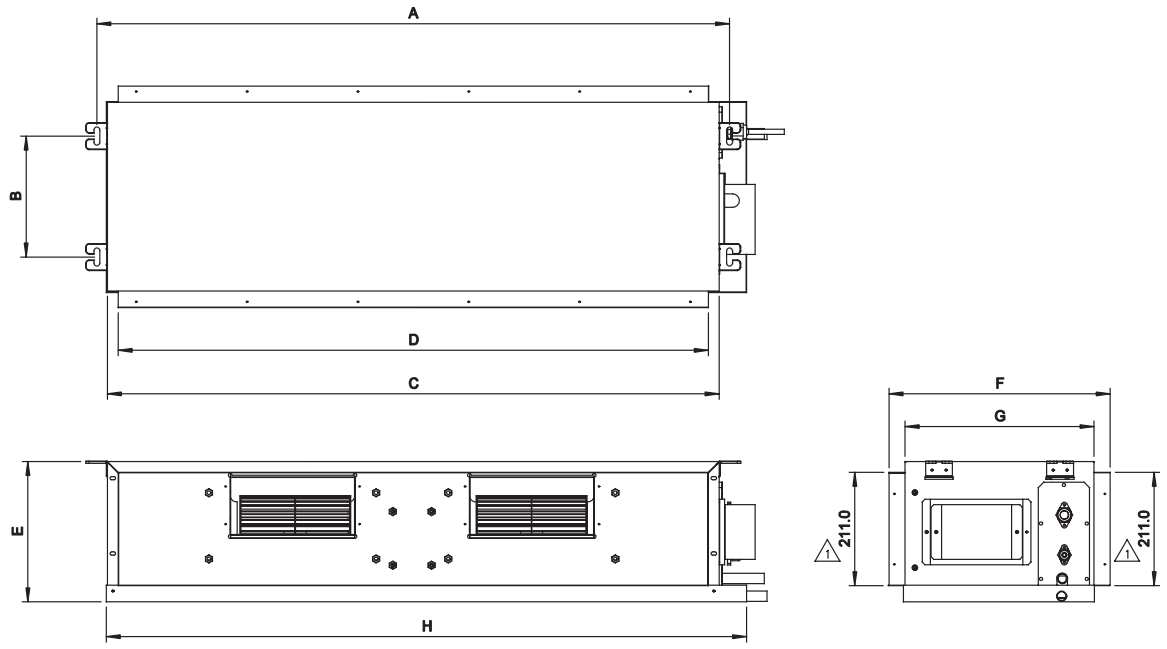
ID DB°C	ID WB°C	Outdoor DB°C											
		20		25		30		35		40		46	
		TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
20	15	6.379	4.076	5.976	3.673	5.606	3.303	5.235	2.933	4.865	2.562	4.420	2.118
	16	6.656	3.828	6.268	3.467	5.897	3.122	5.525	2.777	5.153	2.431	4.707	2.017
24	16	6.656	5.144	6.268	4.782	5.897	4.437	5.525	4.092	5.153	3.747	4.707	3.333
	17	6.934	4.896	6.561	4.576	6.188	4.256	5.815	3.936	5.441	3.616	4.994	3.233
	18	7.197	4.633	6.828	4.344	6.460	4.055	6.091	3.767	5.723	3.478	5.280	3.132
	19	7.470	4.370	7.158	4.115	6.846	3.861	6.534	3.606	6.094	3.345	5.567	3.032
	20	7.716	4.092	7.325	3.796	6.934	3.499	6.543	3.203	6.153	2.907	5.684	2.551
28	18	7.197	5.948	6.828	5.660	6.460	5.371	6.091	5.083	5.723	4.794	5.280	4.448
	19	7.470	5.686	7.158	5.431	6.846	5.177	6.534	4.922	6.094	4.661	5.567	4.347
	20	7.716	5.408	7.325	5.112	6.934	4.815	6.543	4.519	6.153	4.222	5.684	3.867
	21	7.972	5.131	7.554	4.795	7.137	4.460	6.719	4.124	6.302	3.789	5.801	3.386
	22	8.228	4.853	7.784	4.479	7.339	4.104	6.895	3.730	6.451	3.355	5.918	2.906
	23	8.484	4.576	8.013	4.162	7.542	3.749	7.071	3.335	6.600	2.921	6.035	2.425
	24	8.741	4.299	8.243	3.846	7.745	3.393	7.247	2.940	6.749	2.488	6.151	1.944
30	20	7.716	6.066	7.325	5.769	6.934	5.473	6.543	5.177	6.153	4.880	5.684	4.525
	21	7.972	5.789	7.554	5.453	7.137	5.118	6.719	4.782	6.302	4.447	5.801	4.044
	22	8.228	5.511	7.784	5.137	7.339	4.762	6.895	4.388	6.451	4.013	5.918	3.564
	23	8.484	5.234	8.013	4.820	7.542	4.407	7.071	3.993	6.600	3.579	6.035	3.083
	24	8.741	4.957	8.243	4.504	7.745	4.051	7.247	3.598	6.749	3.146	6.151	2.602

Model: M5CC025CR - M5HDC025AR
Heating Mode

ID DB°C	Outdoor WB°C												
	-9		-6		-5		6		12		15		18	
	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)	TC(kW)	SC(kW)
15	4.164	4.164	4.713	4.713	4.895	4.895	6.908	6.908	8.006	8.006	8.555	8.555	9.104	9.104
17	4.054	4.054	4.551	4.551	4.766	4.766	6.900	6.900	7.789	7.789	8.323	8.323	8.856	8.856
19	3.945	3.945	4.389	4.389	4.636	4.636	6.892	6.892	7.573	7.573	8.091	8.091	8.609	8.609
21	3.836	3.836	4.259	4.259	4.507	4.507	6.731	6.731	7.356	7.356	7.859	7.859	8.362	8.362
23	3.727	3.727	4.161	4.161	4.377	4.377	6.418	6.418	7.140	7.140	7.627	7.627	8.115	8.115
25	3.618	3.618	4.064	4.064	4.247	4.247	6.106	6.106	6.923	6.923	7.395	7.395	7.867	7.867
27	3.509	3.509	3.966	3.966	4.118	4.118	5.793	5.793	6.707	6.707	7.163	7.163	7.620	7.620
	FROST REGION													

Outline and Dimension

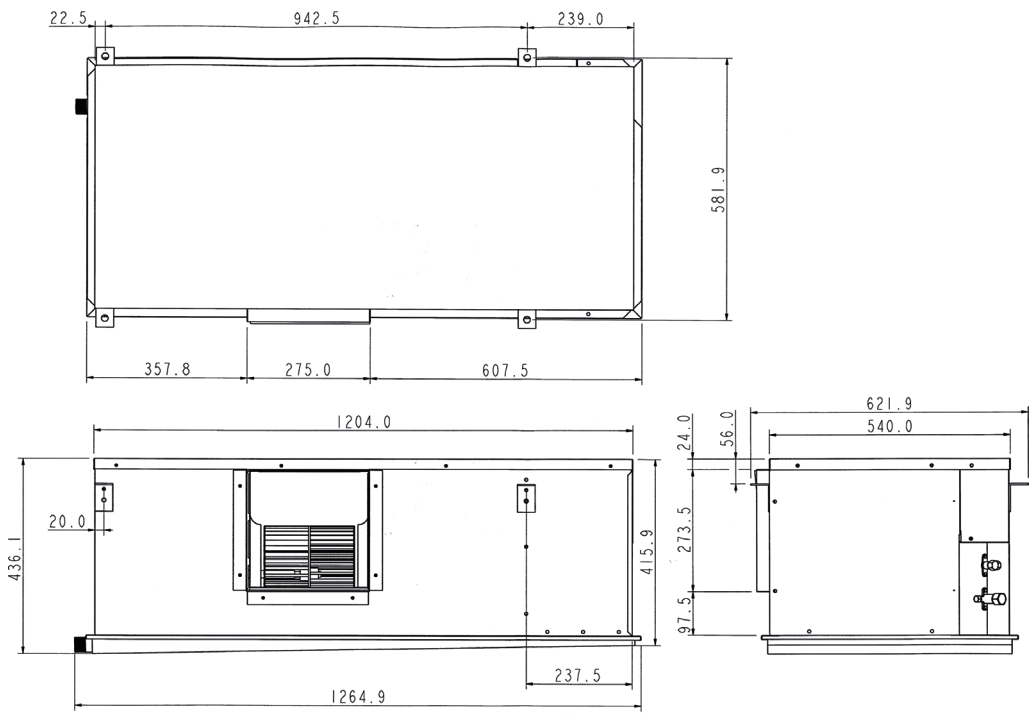
Indoor Unit
Model: M5CC020/ 025CR



Note: Dimension in mm

Model	A	B	C	D	E	F	G	H
M5CC020CR	1041	225	1002	962	261	411	351	1065
M5CC025CR	1176	225	1137	1097	261	411	351	1200

Outdoor Unit
Model: M5HDC020/ 025AR



Note: Dimension in mm

Electrical Data

Electrical Data - Heatpump (R410A)

MODEL	INDOOR UNIT		M5CC020CR	M5CC025CR
	OUTDOOR UNIT		M5HDC020AR	M5HDC025AR
INDOOR MOTOR	INSULATION GRADE		CLASS E	CLASS E
	POWER SOURCE	V/Ph/Hz	220 240/1/50	220 - 240/1/50
	RATED INPUT POWER	W	135	152
	RATED RUNNING CURRENT	A	0.60	0.67
	MOTOR OUTPUT	W	80	100
	POLES		4	4
OUTDOOR MOTOR	INSULATION GRADE		CLASS F	CLASS F
	POWER SOURCE	V/Ph/Hz	220-240/1/50	220-240/1/50
	RATED INPUT POWER	W	409.7	383.4
	RATED RUNNING CURRENT	A	1.87	1.77
	MOTOR OUTPUT	W	375	375
	POLES		6	6
COMPRESSOR	INSULATION GRADE		-	-
	POWER SOURCE	V/Ph/Hz	220-240/1/50	220-240/1/50
	CAPACITOR	μF	50.0	45.0
	RATED INPUT POWER (COOLING)	W	1803	2415
	RATED INPUT POWER (HEATING)	W	1573	2205
	RATED RUNNING CURRENT (COOLING)	A	8.1	12.0
	RATED RUNNING CURRENT (HEATING)	A	7.5	10.9
	LOCKED ROTOR AMP.	A	-	-

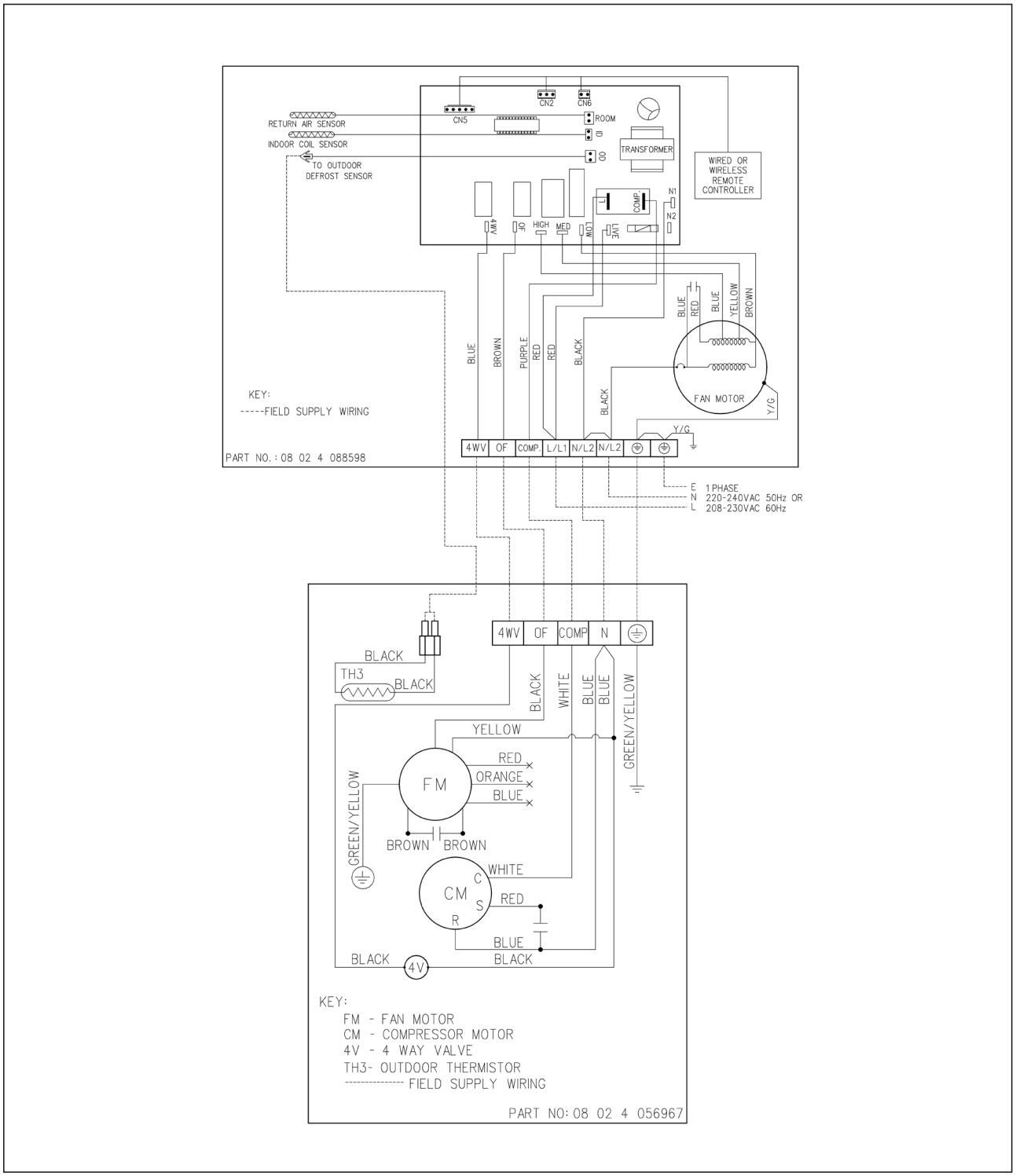
1) ALL SPECIFICATIONS ARE SUBJECTED TO CHANGE BY THE MANUFACTURER WITHOUT PRIOR NOTICE

Wiring Diagram

Heat Pump

Indoor Unit
Model: M5CC020CR
M5CC025CR

Outdoor Unit
Model: M5HDC020AR
M5HDC025AR



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Service and Maintenance

⚠ Caution

Disconnect From Main Supply Before Servicing The Air Conditioner

The unit is designed to give a long life operation with minimum maintenance required. However, it should be regularly checked and the following items should be given due attention.

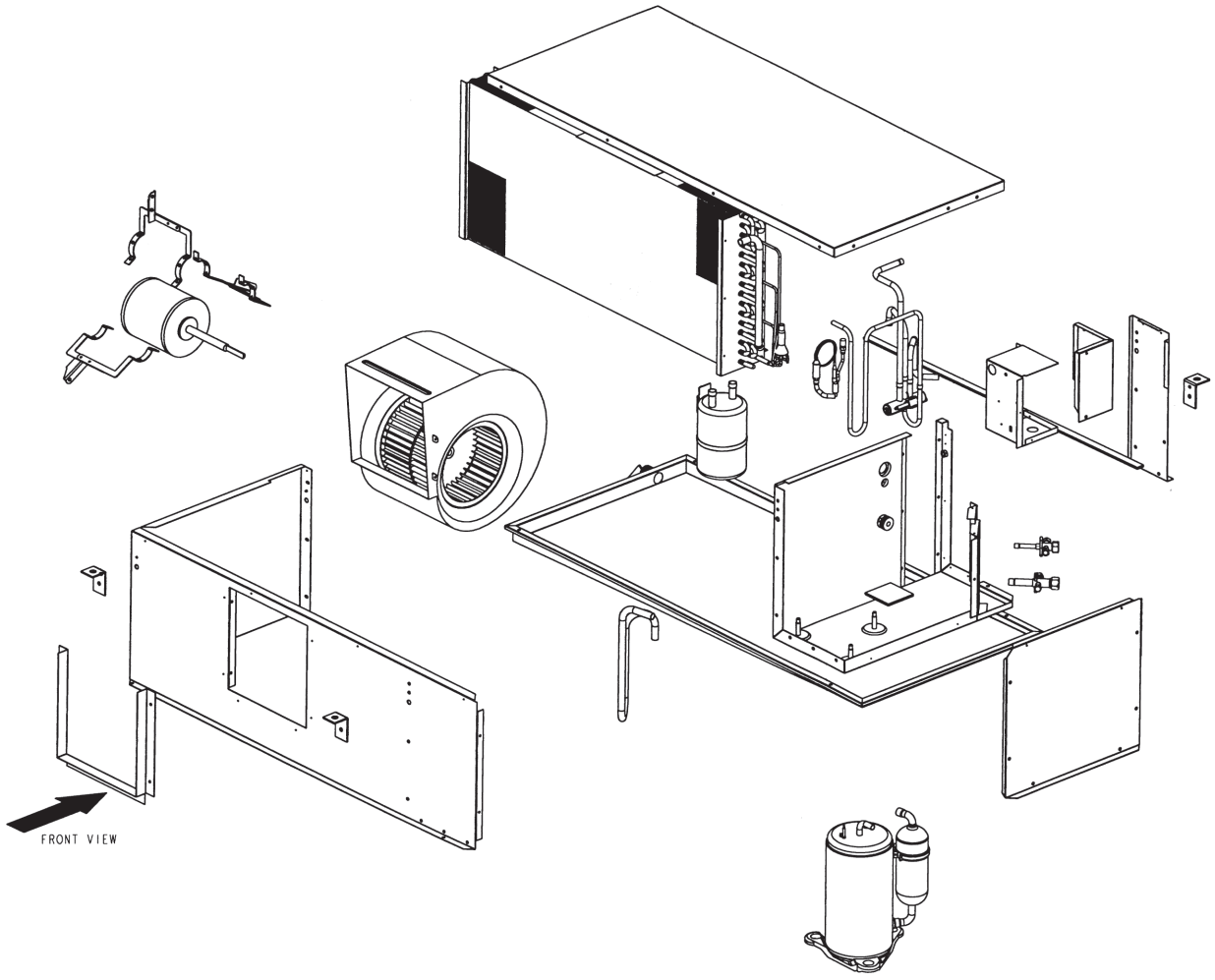
Components	Maintenance Procedure	Recommended Schedule
Indoor Air Filter	1. Remove any dust adhering on the filter by using avacuum cleaner or wash in lukewarm water (below 40°C/104°F) with a neutral cleaning detergent. 2. Rinse the filter well and dry before placing it back on to the unit. 3. Do not use gasoline, volatile substances or chemicals to clean the filter.	At least once every 2 weeks. More frequently if necessary
Indoor Unit	1. Clean any dirt or dust on the grille or panel by wiping it with a soft cloth soaked in lukewarm water (below 40°C/104°F) and a neutral detergent solution. 2. Do not use gasoline, volatile substances or chemicals to clean the indoor unit.	At least once every 2 weeks. More frequently if necessary
Condensate Drain Pan and Pipe	1. Check and clean.	Every 3 months.
Indoor Fan	1. Check for unusual noise.	As necessary.
Indoor/Outdoor Coil	1. Check and remove dirt which are clogged between fins. 2. Check and remove obstacles which hinder air flow in and out of indoor/outdoor unit.	Every month. Every month.
Electrical	1. Check voltage, current and wiring. 2. Check faulty contacts caused by loose connections, foreign matters, etc.	Every 2 months. Every 2 months.
Compressor	1. No maintenance needed if refrigerant circuit remains sealed. However, check for refrigerant leak at joints and fittings.	Every 6 months.
Compressor Lubrication	1. Oil is factory charged. Not necessary to add oil if circuit remains sealed.	No maintenance required.
Fan Motors Lubrication	1. All motors pre-lubricated and sealed at factory.	No maintenance required.

Pre Start Up Maintenance

(After Extended Shut Down)

- Inspect thoroughly and clean indoor and outdoor units.
- Clean or replace air filters.
- Clean condensate drain line.
- Clean clogged indoor and outdoor coils.
- Check fan imbalance before operation.
- Tighten all wiring connections and panels.
- Check for refrigerant leakage.

Most of the parts are accessible by removal of bottom & side panel.



⚠ Caution

- Do not charge OXYGEN, ACETYLENE OR OTHER FLAMMABLE and poisonous gases into the unit when performing a leakage test or an airtight test. These gases could cause severe explosion and damage if exposed to high temperature and pressure.
- It is recommended that only nitrogen or refrigerant be charged when performing the leakage or airtight test.

Troubleshooting

Error Code

Heatpump Model (Universal Board)

Error Code at 7 Segment Display	Operation / Faulty Indication
Blink E1	Room sensor contact loose / short
Blink E2	Indoor coil sensor contact loose
Blink E3	Outdoor coil sensor contact loose
Blink E4	Compressor overload / Indoor coil sensor short / Outdoor coil sensor short
Blink E5	Gas leak
Blink E6	N/A
Blink Heat LED	Outdoor defrost (for Heatpump ony)

Fault Condition

When any air-conditioner malfunction is noted, immediately switch off the power supply to the unit, and contact the local dealer, if necessary. Some simple troubleshooting tips are given below :

Fault	Cause
1. Fan does not work 3 minutes after starting	• Protection against the frequent starting. Wait 3 or 4 minutes.
2. The air conditioning unit does not work	• Power failure or need to replace the fuse. • The power plug is disconnected. • Possibility of making a programming error in the controller. • If the fault persist after these verifications, contact your installer.
3. The air conditioning unit does not blow sufficiently	• The air filter is dirty. • The doors or windows are open. • The air entrance and exit are clogged. • The regulate temperature is not high enough.
4. The remote control light is deficient	• The batteries are discharge. • The batteries are not correctly inserted. • The assembly is not good.
5. Air discharge flow has a bad odor	• This odor can be caused by cigarette smoke particles, perfume, sweat, which stick to the coil. • Check if there is any moisture on the walls, garment, other. • Check the drain pan.
6. Condensation on the air grille of indoor unit	• This is due to air humidity after a long time of operation. • The unit has a lower temperature point, increase the point and operate at high speed.
7. The water flow of air conditioning unit	• Check the condensate evacuation.
8. The air conditioning unit are noisy	• “Air flow noise” : refrigerant fluid admission in evaporator.

Diagnostic Guidelines

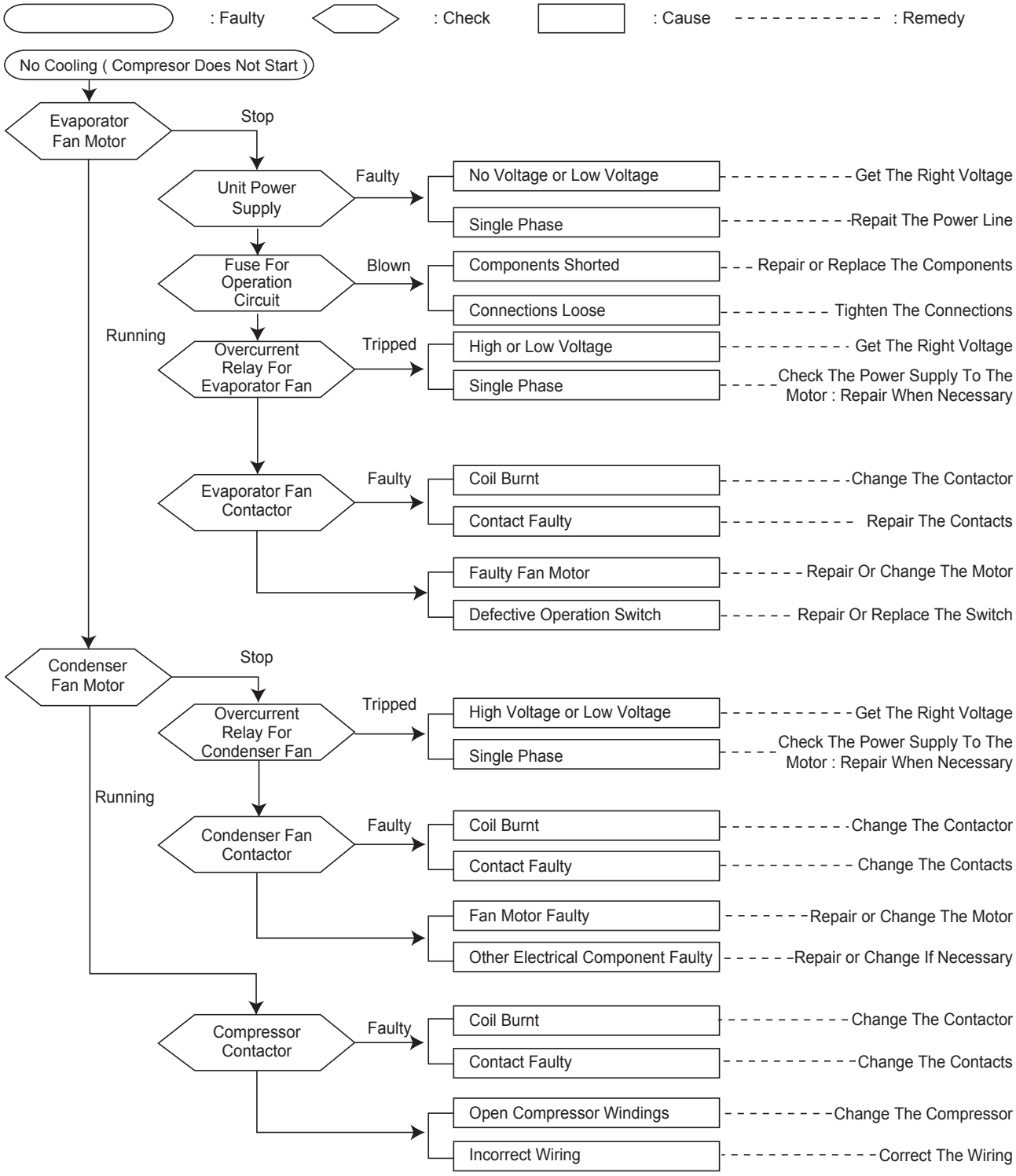
By means of pressure reading:

Data / Circuit	Pressure					Probable cause
	Too low	A little low	Normal	A little high	Too high	
High side **Low side**					• •	1. Overcharged with refrigerant. 2. Non-condensable gases in refrigerant circuit (e.g. air) 3. Obstructed air-intake / discharge. 4. Hot air short circuiting in outdoor unit.
High side **Low side**	•				•	1. Poor compression / no compression (compressor defective) 2. Reversing valve leaking.
High side **Low side**	•	•				1. Undercharged with refrigerant. 2. Refrigerant leakage. 3. Air filter clogged / dirty (indoor unit). 4. Indoor fan locked / seized. 5. Defective defrost control, outdoor coil freeze up (heating). 6. Outdoor fan locked / seized (heating).
High side **Low side**				•	•	1. Outdoor fan blocked (cooling). 2. Outdoor coil dirty (cooling). 3. Indoor fan locked / seized (heating). 4. Indoor air filter clogged / dirty (heating). 5. Non-condensable gases in refrigerant circuit (e.g. air)
High side **Low side**				•	•	1. Air intake temperature of indoor unit too high.

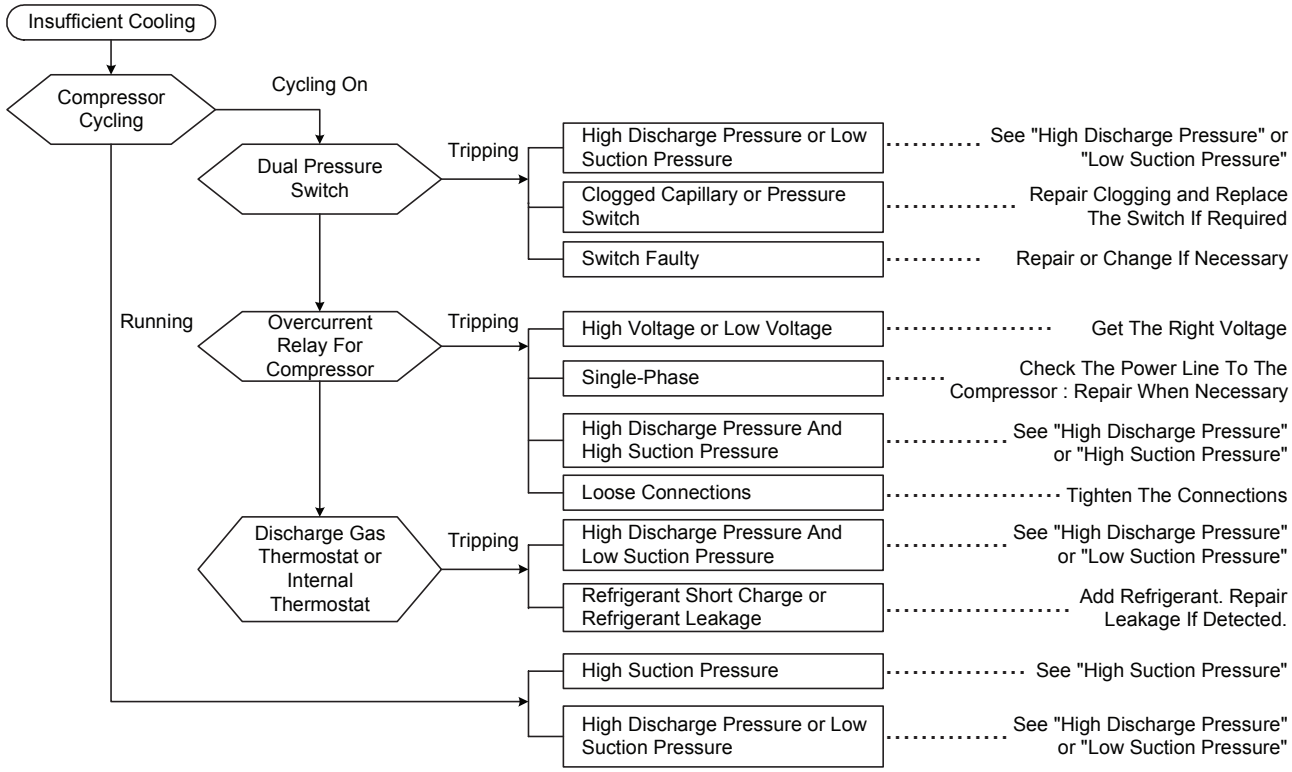
By means of diagnostic flow chart:

The following chart are efficient checking procedures for troubleshooting when these fan coil units, are coupled with the condensing units using standard wiring. For dual circuited models, perform the procedures for each circuit.

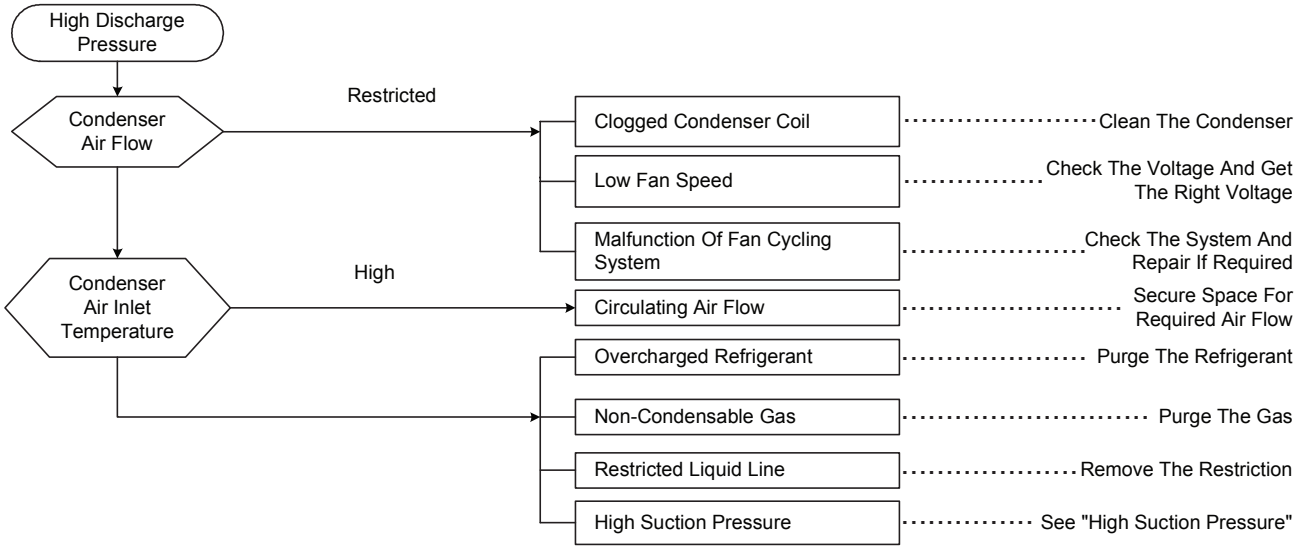
No Cooling



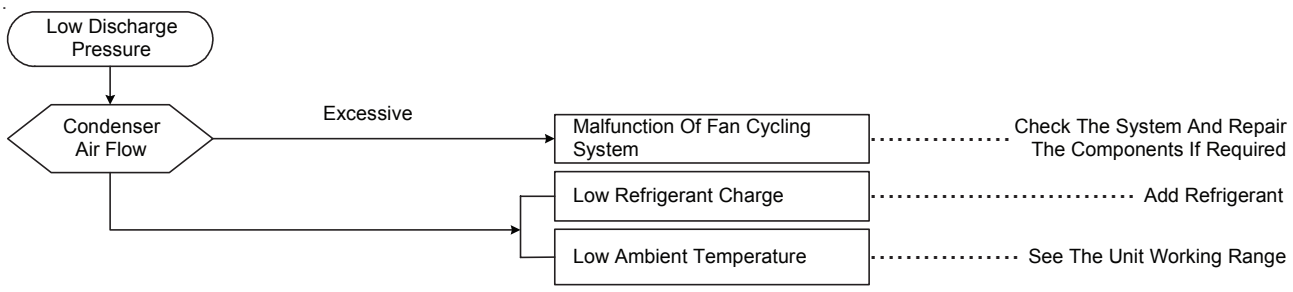
Insufficient Cooling


Insufficient Cooling
Compressor Cycling
Cycling On
Dual Pressure Switch
Tripping
High Discharge Pressure or Low Suction Pressure
See "High Discharge Pressure" or "Low Suction Pressure"
Clogged Capillary or Pressure Switch
Repair Clogging and Replace The Switch If Required
Switch Faulty
Repair or Change If Necessary
Running
Overcurrent Relay For Compressor
Tripping
High Voltage or Low Voltage
Get The Right Voltage
Single-Phase
Check The Power Line To The Compressor : Repair When Necessary
High Discharge Pressure And High Suction Pressure
See "High Discharge Pressure" or "High Suction Pressure"
Loose Connections
Tighten The Connections
Discharge Gas Thermostat or Internal Thermostat
Tripping
High Discharge Pressure And Low Suction Pressure
See "High Discharge Pressure" or "Low Suction Pressure"
Refrigerant Short Charge or Refrigerant Leakage
Add Refrigerant. Repair Leakage If Detected.
High Suction Pressure
See "High Suction Pressure"
High Discharge Pressure or Low Suction Pressure
See "High Discharge Pressure" or "Low Suction Pressure"

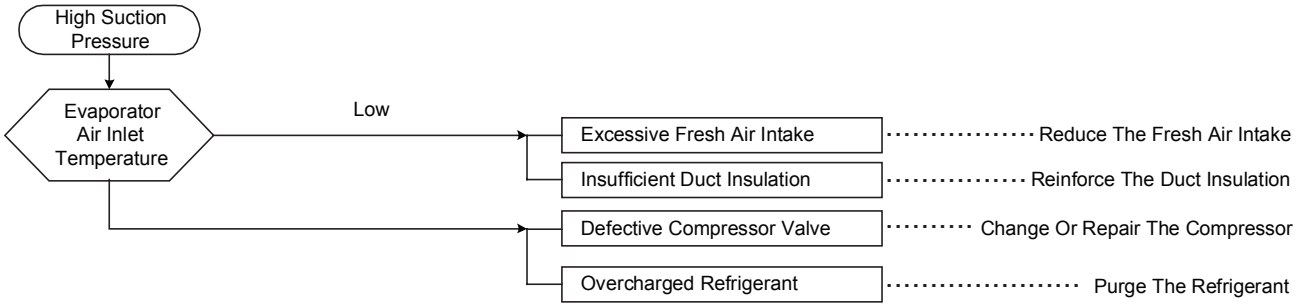
High Discharge Pressure



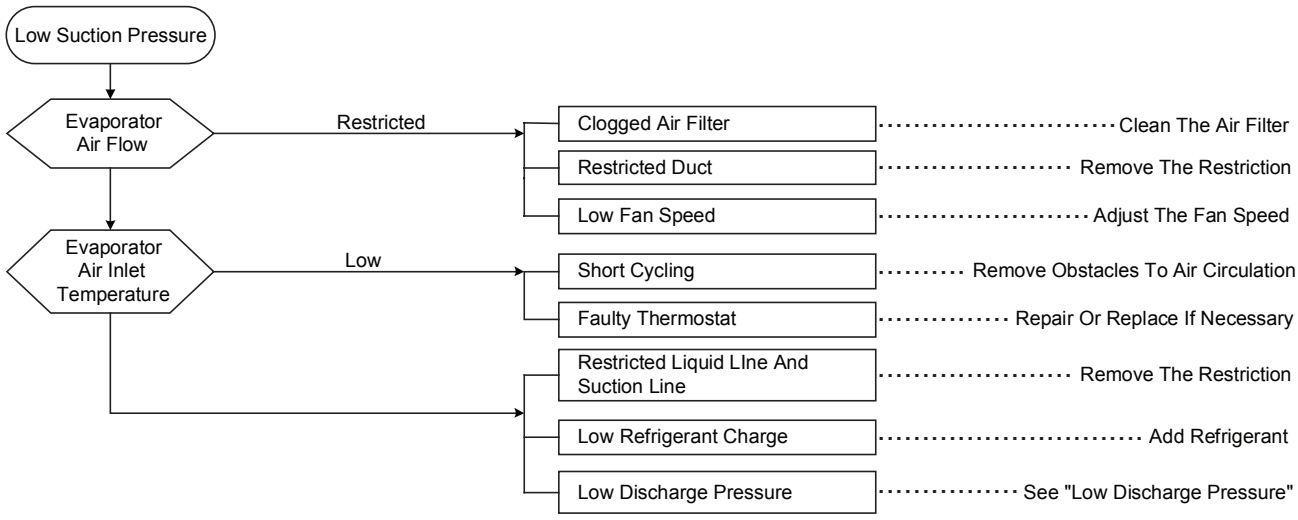
Low Discharge Pressure



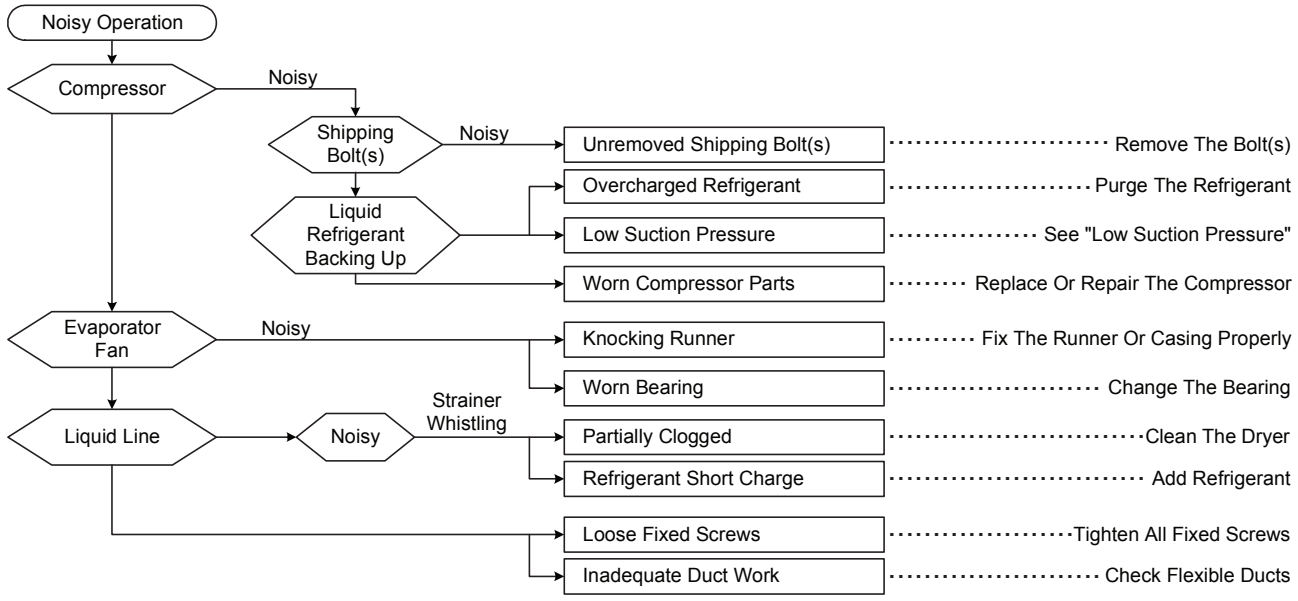
High Suction Pressure



Low Suction Pressure

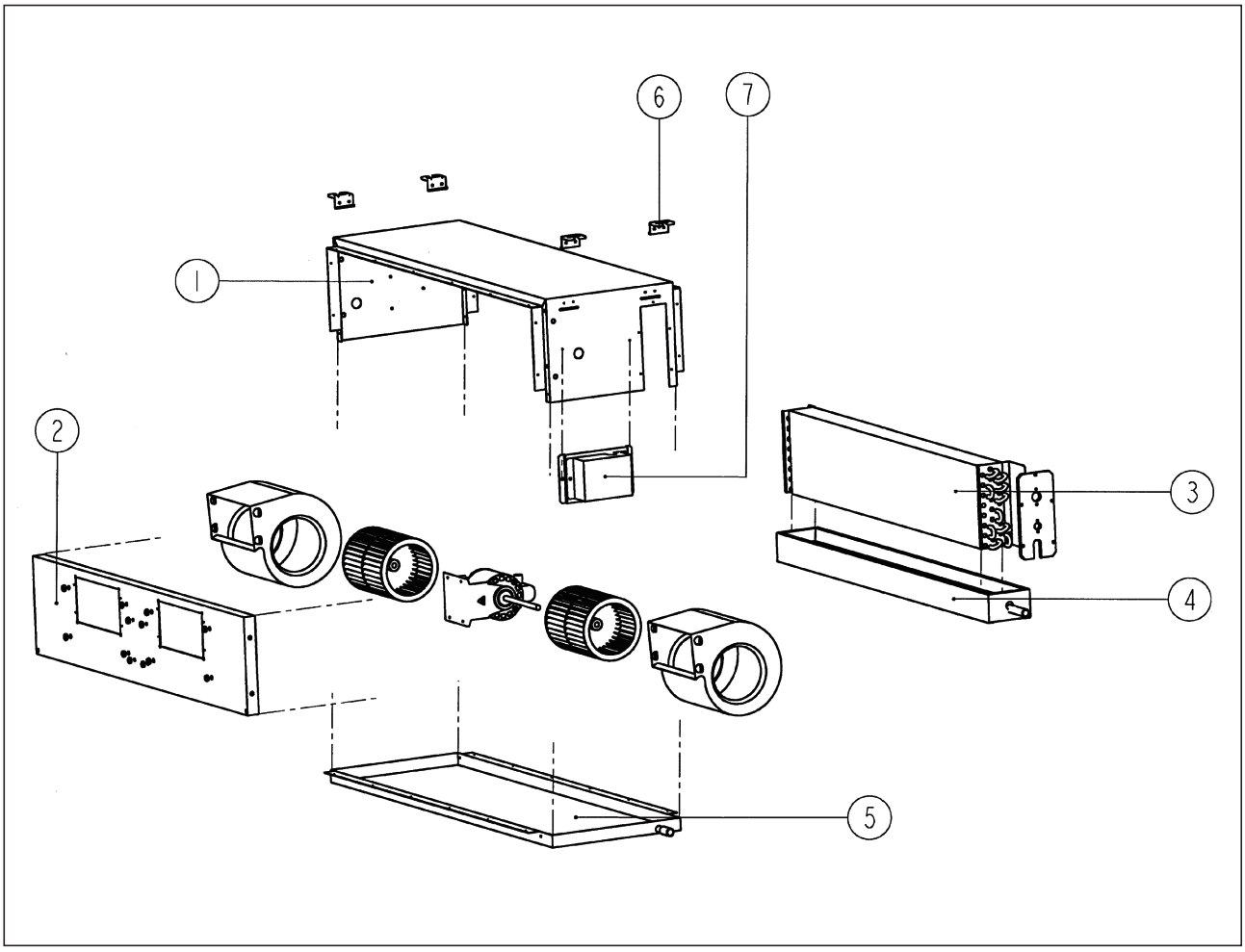


Noisy Operation



Exploded View and Part List

Indoor Unit
Model: M5CC020/ 025CR

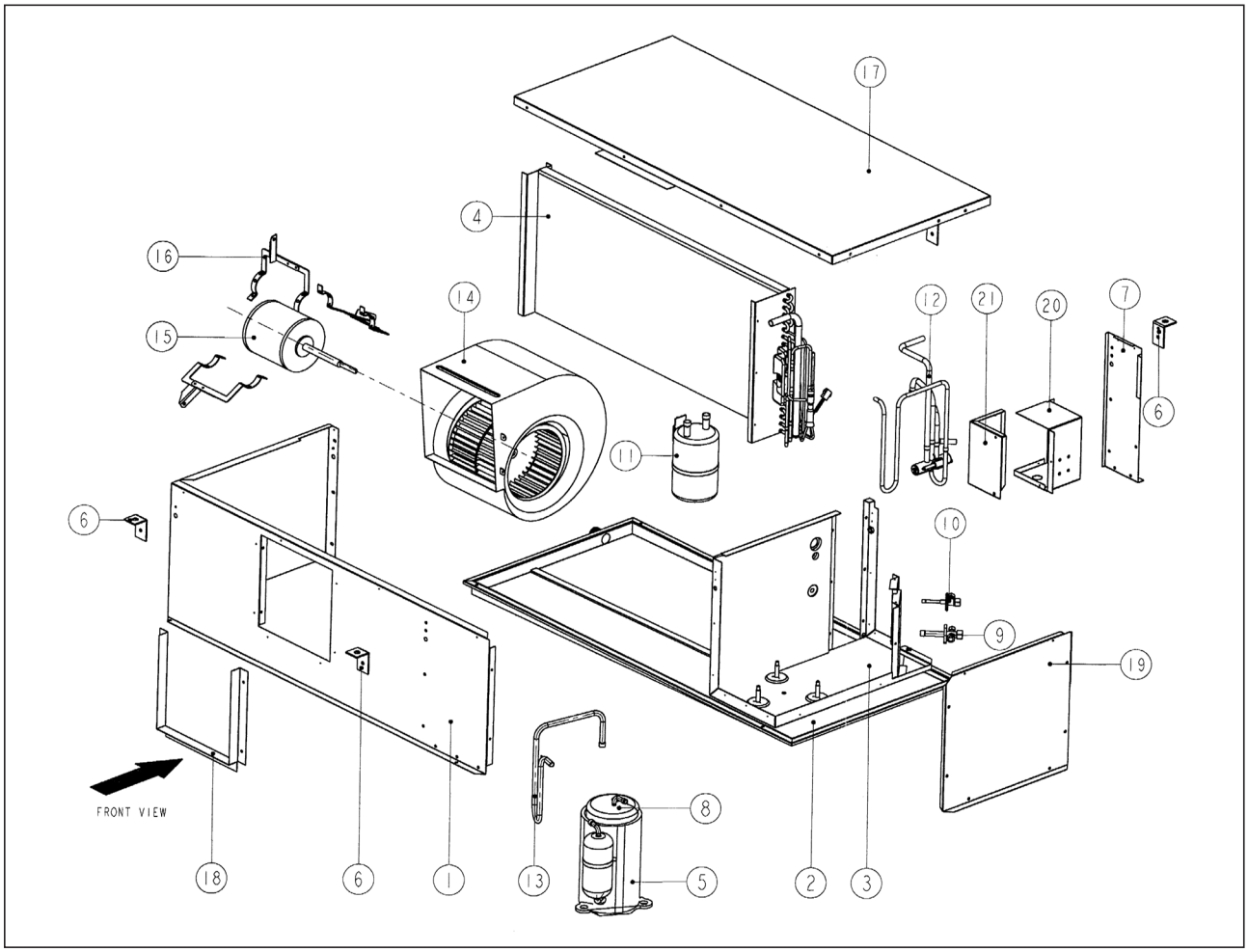


No	Description	Part No
1	Cabinet	
	M5CC020CR	R01013034005
	M5CC025CR	R01013032362
2	Fan Deck	
	M5CC020CR	R50014035082
	M5CC025CR	R50014032629
3	Assy. Coil	
	M5CC020C	R50024079268
	M5CC025CR	R50024079271
4	Primary Drain Pan	
	M5CC020CR	R50063033908
	M5CC025CR	R50063032369
5	Secondary Drain Pan	
	M5CC020C	R50019009407
	M5CC025C	R50017009420
6	Hanger	R01014032372

No	Description	Part No
7	-	
Parts not in diagram		
A	Assy. Wheel & Housing - Left	R50039005356
B	Assy. Wheel & Housing - Right	R50039005355
C	Fan Motor	
	M5CC020CR	R03039004898
	M5CC025CR	R03039004899
D	Air Filter	
	M5CC020CR	R03084037809
	M5CC025CR	R03084037812
E	Assy. Drain Pipie Joint	R50094035451
F	L2 Control Module	
	M5CC020CR	R04089028159
	M5CC025CR	R04089018158
G	SLM Handset	R04089011752

Note: All exploded view and part list are subjected to change by the manufacturer without prior notice

Outdoor Unit
Model: M5HDC020AR



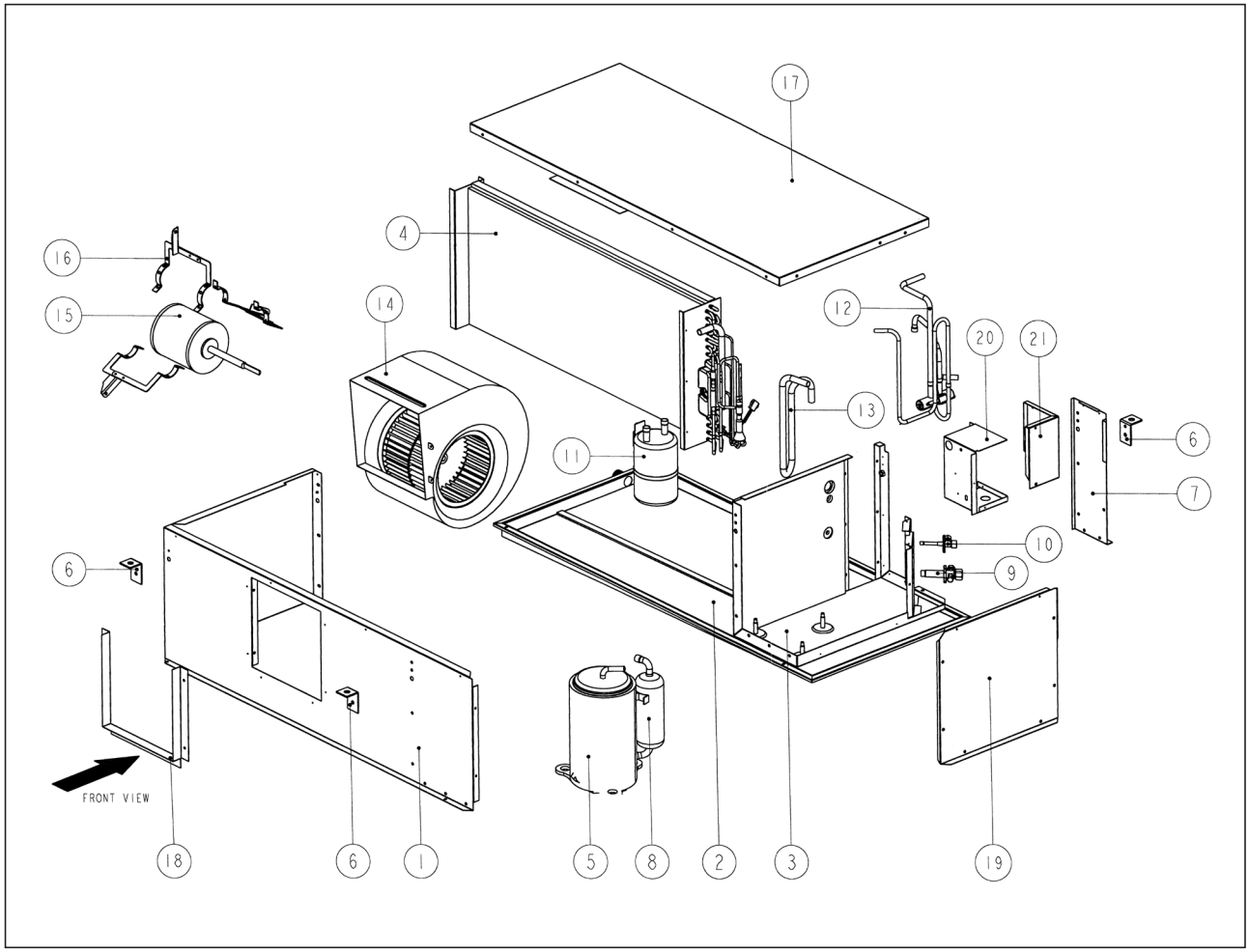
70014072757

No	Description
1	Assy. Front Panel
2	Assy. Drain Pan
3	Assy. Base Panel
4	Assy. Coil
5	Compressor Jacket
6	Hanging Bracket
7	Back Panel
8	Compressor
9	Assy. Flare Valve, 1/2"
10	Assy. 2-Way Valve, 1/4"
11	Accumulator

No	Description
12	Assy. 4-Way Valve
13	Tube (Comp. Suct. To Acc. Out)
14	Blower
15	Fan Motor
16	Bracket, Fan Motor
17	Top Panel
18	Duct, Flange
19	Service Panel
20	Terminal Box
21	Terminal Box Cover

Note: All exploded view and part list are subjected to change by the manufacturer without prior notice

Outdoor Unit
Model: M5HDC025AR



70014072758

No	Description
1	Assy. Front Panel
2	Assy. Drain Pan
3	Assy. Base Panel
4	Assy. Coil
5	Compressor Jacket
6	Hanging Bracket
7	Back Panel
8	Compressor
9	Assy. Flare Valve, 5/8"
10	Assy. 2-Way Valve, 1/4"
11	Accumulator

No	Description
12	Assy. 4-Way Valve
13	Tube (Comp. Suct. To Acc. Out)
14	Blower
15	Fan Motor
16	Bracket, Fan Motor
17	Top Panel
18	Duct, Flange
19	Service Panel
20	Terminal Box
21	Terminal Box Cover

Note: All exploded view and part list are subjected to change by the manufacturer without prior notice

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